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ABSTRACT

The Spanish speaking Mexican immigrant population accounts for the fastest growing population in California, where one in six students is an immigrant. This study utilized organizational theory to relate school characteristics such as interdependence, coordination, and information processing to working with immigrant students. The sample consisted of 38 California junior high and middle schools with the unit of analysis being at the school level. Questionnaires administered to school representatives, school records, and interviews with students about their experiences in their new schools were the data sources. The immigrant population in this study was not characterized by problems; they attended school regularly, were well-behaved, and performed reasonably well academically. Schools were dominated by information processes leaving little opportunity for professionals to collaborate. Staff isolation characterized these schools with little teaming, interdependence, collective decision-making, or information exchange related to academic issues. Results of the study are mixed, and hypotheses were only partially supported. Interdependence among the staff resulted in lower rates of disciplinary referrals, and schools with teams had higher levels of information exchange. Contrary to predictions, excused absences and disciplinary referrals were found to be positively associated with the quality of information processing strategies. Recommendations are made to improve a school's ability to address student diversity. (Contains 3 figures, 14 tables, and 50 references.) (Author/SLD)

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MEXICAN IMMIGRANTS IN MIDDLE SCHOOLS: DIVERSITY, ORGANIZATIONAL STRUCTURE AND EFFECTIVENESS

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MEXICAN IMMIGRANTS IN MIDDLE SCHOOLS: DIVERSITY, ORGANIZATIONAL STRUCTURE AND EFFECTIVENESS

Abstract

The Spanish-speaking, Mexican immigrant student population accounts for the fastest growing population in California, where one in six students is an immigrant. This study utilized organizational theory to relate school characteristics such as interdependence, coordination and information processing in working with immigrant students. The sample consisted of 38 California junior high and middle schools with the unit of analysis being at the school level. Questionnaires administered to school representatives were the primary source of data. School records provided information on measures of effectiveness such as attendance patterns, disciplinary referrals, suspensions, and grade point average. Oral interviews with students provided insights about student experiences in their new schools.

The immigrant population in this study was not problematic; they attended school regularly, were well-behaved and performed reasonably well academically. Schools were dominated by informal processes leaving little opportunity for professionals to collaborate; staff isolation characterized these schools with little teaming, interdependence, collective decision-making or information exchange related to academic issues.

The results of this study are mixed, and the hypotheses were only partially supported. As predicted, interdependence among the staff resulted in lower rates of disciplinary referrals. Those schools with teams had higher levels of information exchange. Contrary to my prediction, excused absences and disciplinary referrals were found to be positively associated with the quality of information processing strategies.

The lack of collaboration, low levels of more sophisticated strategies for information processes, and weak coordination lead to several recommendations for change. Improvement in these areas is critical to a school's ability to address student diversity.

THE PROBLEMATIC SITUATION: THE CHALLENGE OF STUDENT DIVERSITY

In the 1990's the middle schools, with their differentiated structures, occupy center stage in the discussion of restructuring and reorganizing of schools. Questions about grade span, departmentalization, and interdisciplinary teaming, are examples of the issues being examined in these discussions. Because of the newness of middle schools in the United States, many questions remain unanswered. Several studies were conducted during the 1960's and 1970's in attempts to describe the "middle school phenomenon" (Cuff, 1967; Alexander, 1968; Kealy, 1971; Brooks,1978). These national surveys examined grade span, organizational configuration, and staff arrangements. During the 1980's the Department of Education provided funding for three major studies on middle schools (Hough, 1989a). Earlier concerns about middle level education have surfaced again in the 1990's. Middle level education has received national attention providing an impetus for more national studies about middle level education in the United States. Recently, Alexander and McEwin (1989) re-examined the status of middle level education as we approach the 21st century. Epstein and Mac Iver (1990) followed with their landmark study "Education in the Middle Grades: National Practices and Trends" where they examined middle school structures systematically.

While these studies have contributed valuable insights to the state of middle level education in general, they have failed to identify specific organizational designs that are effective in addressing the needs of students populations that are academically, linguistically, and ethnically heterogeneous. Available middle school research has not compared alternative organizational arrangements, nor has it tried to assess organizational mechanisms that are necessary to facilitate responsiveness and ensure effectiveness in working with special groups such as the immigrant student.

This study extends prior work by examining structural variables and their influence on school effectiveness in addressing the educational needs of a specific and unique student population-- the Mexican immigrant student. It goes beyond previous research in middle level education which has been largely descriptive.

Understanding the school level processes that structure opportunities (Nieto, 1996) for teachers and staff to work together in supporting immigrant student academic achievement is investigated in this study. That is, organizational factors (how staff works together, for example) that contribute to adequately addressing the academic needs of Mexican immigrant students (assessment of student abilities, for example) in junior high/middle schools. The organizational factors that are the subject of this study include the staff's work arrangements such as coordination and interdependence (teaming) and the

processing of information around the academic needs of the Mexican recent immigrant students. What school level practices are associated with effectiveness in working with Mexican immigrant students? This is the central question that guided this study.

In this study "recent Mexican immigrant" refers to those individuals or students from Mexico who have lived in the United States two years or less. "Junior high" and "middle school" are used interchangeably in this study, referring to institutional arrangements which may include combinations of grades 5, 6, 7, 8 and 9.

Recent Mexican immigrants in California middle schools.

The growth of the immigrant student population and the continuing dynamic changes in California pose a tremendous challenge to the capacity of schools to address their educational needs. The significant proportions of immigrant students in the adolescent age group greatly impact the middle schools not only in terms of enrollment figures but also because of this group's educational heterogeneity. The immigrants' diversity challenges the organization's capacity to integrate this student population into its normal routines and procedures. At the same time, middle schools are in the midst of a period of organizational change, including the restructuring of prevalent models.

The size of the Spanish-speaking immigrant population has made an impact on the school system to the point where they can no longer be handled by the organization as individual exceptions. Immigrant students are no longer "minorities" or isolated cases in most California schools. Instead, they represent a significant, and growing, student population forcing schools to consider and develop ways to systematically and effectively integrate their educational needs into the middle school structure.

The newcomer status of Spanish-speaking immigrant students poses a special challenge to the middle school because it adds to the already existing developmental diversity of this age group and student population. The educational heterogeneity of this age group represents an element of uncertainty for schools because student needs vary widely. This unusual level of heterogeneity among the students presents an ideal opportunity to examine the relationship between differences in middle school organizations and their capacity to deal effectively with a task (educating immigrant students) involving great uncertainty and requiring information processing.

THE RESEARCH PROBLEM: ORGANIZATIONAL RESPONSIVENESS TO DIVERSITY

The Problem of Routine Rules and Regulations

Middle schools typically have a routine bureaucratic character. Rules and procedures govern the academic programming of students. In these schools, rules for

placing students (i.e. academic placement vis-a-vis categories) have been pre-determined, scheduled, and dictated by specific procedures that are present before students even enroll in school. Student programs are developed with little consideration for individual student needs --from educational to psychological needs. These standardized academic menus, although efficient in terms of mass processing of students, often fail to provide students with an appropriate academic program. These procedures frequently track individuals into groupings that may not match their educational needs. Furthermore, student progress goes unmonitored; students remain in the track in which they were originally placed upon their enrollment. Pre-planned academic schedules, developed without any information about individual learners are not only educationally unsound, but lack an important and necessary personal touch essential to academic program development. These procedures leave little room for an institutionalized, systematic individualized placement of students.

Take, for example, a student whose family has recently moved to a new town and is enrolling in a new middle school. School records that the student brings to the school upon enrollment indicate s/he has above-grade-level skills in math and below-grade-level skills in reading. This is important information that should be considered and taken into account in developing an educationally sound program for this student. Also, if the student is unable to provide the school with background information necessary for academic placement, an assessment of basic skills should be given by the school. Random or subjective academic placement of students is not only academically unsound but also organizationally ineffective. Unfortunately, an existing structure, marked by pre-conceived rules and procedures, will either (a) assign this student an academic program that matches his/her math needs, or (b) provide a schedule that will address his/her reading needs; seldom can such a school accommodate both.

The assessment and placement problems are compounded by the inflexibility of master schedules. Master schedules reflect an organizational assumption about student abilities being one and the same across all levels of the curriculum. That is, if a student has mastery or grade level proficiency in math, s/he is assumed to possess similar proficiency in other academic subjects such as English. The possibility of a student having mastery of math skills and lacking proficiency in English reading skills does not exist. Master schedules and the routine bureaucratic nature of uniform programming do not accommodate intellectual weaknesses and strengths of a student. Even student interests are not acknowledged by these fixed procedures. For example, social or vocational interests students may have are seldom considered in the overall development of academic schedules.

On the other hand, there are some middle schools that have recognized and addressed the academic heterogeneity of adolescents upon their enrollment (Balderrama, 1984). For example, intake interviews may include an assessment of academic background and skills by a counselor or other designated professional. The counselor, may work closely with teachers in developing an academic program and in monitoring a student's progress in school. Such a process facilitates identifying any special needs (i.e. linguistic, physical, emotional) that should be considered in selecting an academic program. The student's educational program and progress become a collective "team effort", coordinated by the counselor. Consequently, the intake process facilitates academic placement and monitoring that is meaningful to students while also being pedagogically sound.

Schools where academic placement of its students is marked by standardized bureaucratic rules and procedures are particularly problematic for the adolescent immigrant student. Often, immigrant students are unable to provide evidence or documentation about previous academic experiences upon their enrollment. If a school does not have objective information upon which to base their placement, and existing procedures do not include assessment for academic programming, it is likely that the academic program given to a student will not reflect his/her educational needs. The National Coalition for Advocates for Students (1988) notes that "many recent state and local school reforms have resulted in increasingly standardized school structures, curricula and teaching and assessment strategies" (p. 44). To complicate matters further, the families of these students may not speak English, may not be familiar with a school's bureaucratic processes, and may often experience difficulty articulating their children's educational needs. Also, trained bilingual staff is seldom available to facilitate the enrollment process for immigrant families resulting in communication difficulties coupled with the impersonal effect of rules and procedures. The development of these rules and procedures occurred previous to the changes in student composition of the past ten years. Immigrants in previous decades were generally single, older males (non-school age). However, the new immigrant wave is characterized by school-aged youngsters and women. Previously, immigrant youngsters trickled into schools and it was possible to address their needs on an individual basis. Presently, enrollment of immigrant students in schools has reached proportions such that the schools need to establish school level procedures to process their entering students. In many school districts immigrant students are no longer the exceptions, but the norm. Consequently, procedures for enrolling these students must not only be institutionalized but updated to reflect these demographic changes.

The immigrant student is particularly vulnerable in departmentalized settings where assessments of student background variables are not formally coordinated or institutionalized. Often, immigrant students are lumped together "because they all speak Spanish". It is likely that inappropriate organizational responses to these situations will result in severe negative consequences not only for students but for society in general.

In organizational terms, diversity in backgrounds and skills presents a task with a high degree of uncertainty to the existing (school) organizational structure (Natriello, McDill, & Pallas, 1990). The traditional mechanisms of rules and schedules used to process students routinely and uniformly can no longer deal with the task effectively because of the variability of input. Variability and uncertainty require specific coordination mechanisms that result in interdependence and a need for more information exchanged. That is, as the numbers and differences in background of immigrant students increase, so does the need to develop ways to coordinate and work together to exchange information about students. Ultimately, as staff know their students, monitor their progress and work together to address their needs it is predicted that student achievement will increase, as measured by attendance, discipline referrals, suspensions and grades.

REVIEW OF THE LITERATURE: IMMIGRANTS, MIDDLE SCHOOLS AND SCHOOL EFFECTIVENESS

Central to improving schools is knowing and understanding the student population(s) served. This section provides a context and background for understanding the educational needs of the Mexican immigrant population in middle schools. Descriptive data including population size, demographic distribution, and comparisons with other immigrant groups are provided. First, I review the literature on immigrants and junior/middle schools focusing on California. Second, I discuss research on middle school effectiveness. I close this section with a discussion of effective middle schools and immigrant students.

California's Immigrant Student Population

The United States remains a nation of immigrants with immigration (combined legal and illegal) being at the highest level in this country's history . California is the state experiencing the greatest impact of immigration with estimates that more than 550 immigrants enter the state daily. Immigrants today are younger than in previous generations with many being of school age. Bouvier (1987) claims that the state will add almost 80,000 school age children (ages 5-19) every year between the years 1980-2000. He further elaborates that by the 21st century one half of school aged children are expected to be Hispanic or Asian. Many of these children will be immigrant students.

Immigrants are a significant-sized group within schools, making generous contributions to student diversity. With Mexican- American students having the dubious distinction of being the most segregated in this country (Valencia, 1991) it is not surprising that many schools are attended primarily by immigrants (Olsen, 1988). In previous immigration waves, the mostly European immigrants settled in the northeast and mid-west, while today's immigrants are coming from Latin America and Asia, and tend to settle in California (Rumbaut, 1990). Table 1 shows the contrast of legal immigrant admissions to the United States between two immigration waves, 1910-1920 and 1980-1990

Table 1
Contrast in Countries of Origin of Legal Immigration to United States between 1901-1920 and 1980- 1990

Countries of Origin	1901-1920	1980-1990
Europe	85%	10%
Asia	4%	48%
Canada	6%	2%
Latin America	4%	35%
Other	1%	4%

Source: INS Statistical Yearbooks, 1980-87 and "Immigration to the U.S..., the Unfinished Story," Population Bulletin 41, No. 4 (Washington, D.C.:Population Reference Bureau Inc., 1986)p. 16. Technical Note: Latin America includes Mexico and the Caribbean.

In the 1990's a significant majority of immigrants (35%) are from Latin America, with 62% of Latin American immigrants coming from Mexico and being Spanish-speaking. California is the state receiving most immigrants with Mexicans, Filipinos and other Asians making up the largest of the groups who have been admitted under regular immigration quotas. More Filipinos lived in California in 1980 than were residing in all of the United States , for example. The 1990 California language census (See Table 2, below) taken of approximately five million students shows that more than 1.4 million or 29% of these students come from homes where a language other than English is spoken.

Table 2
California Language Minority Student Enrollment

Language Group	No. of LEP*	No. of FEP**	Total
Spanish	655,097	408,280	1,063,377
Vietnamese	34,934	27,681	62,615
Cantonese	21,154	23,113	44,267
Korean	13,389	20,178	33,567
Filipino/Tagalog	16,338	35,135	51,473
Portuguese	2,830	4,601	7,431
Mandarin	7,201	13,257	20,458
Japanese	5,505	6,541	12,046
Cambodian	19,234	5,243	24,477
Lao	12,177	4,275	16,452
Hmong	18,091	3,824	21,915
Armenian	9,046	3,021	12,067
Arabic	2,771	3,248	6,019
Farsi	4,875	7,041	11,916
Punjabi	2,093	2,161	4,254
Samoan	1,490	1,842	3,332
Hindi	1,754	1,892	3,646
All Others	33,552	50,172	83,724
TOTALS	861,531	621,505	1,483,036

*Limited English Proficient
**Fluent English Proficient

Source: DATA BICAL:1980

The languages spoken by identified LEP and FEP students are revealing about the student population in general and the immigrant student population in particular. More

than 100 different languages are spoken in California schools, with Spanish being the largest language group represented.

The southern region has the highest concentration of Spanish speaking immigrants in the state, with Los Angeles County having the greatest number of LEP students--321,866 reported in 1990. Specific school districts within these counties have felt the greatest impact of immigrant students. There are districts, such as those along the Mexican border where the majority of the schools are dominated by immigrant students. Proximity to the border alone, however, does not determine or establish a large student population. A case in point is the Santa Ana Unified School District in Orange County (approximately 150 miles from the Mexican border). The District estimates that 56% of their total k-12 enrollments are LEP, compared to 31% in Los Angeles (California State Department of Education, 1989).

It is clear that the size of the enrollment of LEP students in California is on the increase. Comparing enrollment between 1981 (116,600) and 1990 (287,848) indicates a dramatic and steady growth of LEP students in grades four through nine (California State Department of Education, 1990). Increasingly LEP student enrollments are becoming a significant percentage of the total enrollment in California public schools. Appendix A shows the LEP students as a percent of the total enrollment in California Public Schools, 1981-1990 for grades four to eight.

Having described the immigrant student population in California, I now shift to examining how this population's academic needs are being addressed presently within the context of the middle school setting.

Immigrants in Middle Schools - The 1990's

In the middle of the 1990's, schools in general and middle schools in particular are challenged by the demands of diversity. Teachers and administrators face a student population heterogeneous with regards to previous academic experiences. Recent immigrant students are major contributors to this diversity, entering California schools with a wide variety of backgrounds and varying levels of literacy and computational skills. While some students may have attended schools in Mexico (especially those coming from the urban areas) and their academic skills are at or above grade level, many immigrant students have limited schooling experiences, while still others (often those from the isolated, rural areas) have never attended schools . As immigrant students enroll in middle schools they are often assigned an academic program that consists mostly of ESL classes, often lacking core academic subjects or higher level courses. Immigrant students are often relegated to lower tracks by their LEP status. According to second language acquisition theory, the type of ESL program or instruction a student receives

should be dictated by the level of primary language literacy a student possesses. Inherent in the process used for placement, is the fact that any academic diversity within this group is not recognized in developing academic programs for these students. As stated previously, most middle schools have a routine bureaucratic character meaning that rules and procedures govern the academic placement of students. These procedures leave little room for an institutionalized, systematic individualized placement of students based on individual student needs.

How do Mexican immigrant students fare in the junior high? What does the evidence suggest about the organization's (for example, the school's) ability to address their needs effectively? Although data on immigrant education is limited, several ground-breaking studies have begun to raise questions about how immigrants are handled by schools.

Reports on Immigrants in the Schools

Crossing the Schoolhouse Border (Olsen, 1988) paved the way for the study of contemporary issues related to the education of immigrant youth. Two years of extensive research found that most immigrant children have tremendous needs unmet by the schools. The study also found schools largely unprepared to serve these children, often lacking resources, teachers or instructional materials. At other times, unwillingness to educate "foreigners" or to do anything "extra" for this population led to failure to work with immigrant youth. While the report closed with policy recommendations for the education of immigrants in general, little attention focused exclusively on middle schools. Below I highlight some of the recommendations relevant to school structure and to this study.

- •Approaches which assure access and equal participation for all children in that common program.
- •Instruction delivered in a linguistically and culturally comprehensible manner
- •Comprehensive assessment approaches linked to appropriate placement options in supplemental and instructional programs.
- •A safe and positive integrated school experience with a social climate respectful of diversity.

Olsen (1989) explains that the schools' failure to address immigrant student needs is compounded by the children's "large academic gaps, compounding the task of learning cultures and tongues and often leading to school failure and unacceptably high drop-out rates close to 70%" (Olsen, 1989, p.4). In her interview with immigrant students, Olsen (1988) found that one out of four had considered dropping out, with undocumented students being four times more likely to leave school than those who were refugees. Analysis of the data by language groups found that Mexican, Central American, Filipino

and Southeast Asian students were more likely to consider dropping out. These present estimates coincide with turn-of-the-century drop-out statistics for middle level students, may of whom were also immigrant. For example, in 1905, two-thirds of the pupils dropped out of school before grade 9, prompting the creation of the junior high school. Olsen (1989) concludes by observing that "these immigration waves have caused upheavals in a school system unprepared for incorporating and educating the complex mix of cultures, languages, and nations represented in the student population." (p.6)

While the research conducted by Olsen and National Coaltition of Advocates of Students (1988) addresses the unresponsiveness of the departmentalized structure in general, recent research conducted by Olsen and Minicucci (1992) addresses specific issues of curriculum access by immigrant students. Olsen and Minicucci (1992) reported how immigrant students are often denied access to core area classes, revealing how secondary school structures mediate tracking of ESL students. Their findings confirmed and revealed important facts about the secondary school structure and immigrant students:

- Overall lack of access to content area classes for LEP students.
- Lack of access to content area classes is related to teacher shortage, as well as to fragmented, departmentalized, decision making.
- Linguistic separation of students
- Mismatch between the traditional secondary schools and the needs of LEP students, leading to a lack of support.
- Lack of comprehensive approaches to the education of LEP students in secondary schools, and inadequate policy or research attention to the special and pressing challenges facing secondary schools.

For the first time, researchers document the relationship between immigrant or LEP status and lack of equal access to academic courses in secondary schools. The limitations of the departmentalized structure impede developing individualized academic programs, relegating LEP students to ESL tracks. Consequently, students are linguistically segregated. In organizational terms, the lack of coordination and interdependence amongst staff, is related to a school's inability to address the challenge posed by immigrant students.

Middle School Reform and Responsiveness to Individual Students

The unresponsiveness of middle schools is not specifically aimed at immigrant students (although they are often one of the most affected groups). Junior highs are presently under scrutiny and criticism for their inability to address the needs of youth in general. In response to these cries, national and state documents demand the

restructuring of middle schools, by altering the existing structures to reflect closer working relationship between teachers and students.

Echoing throughout the community of middle level educators is the cry for restructuring schools into environments or communities that are increasingly collaborative, diminishing student and teacher alienation, and by addressing individual student needs. Concepts such as school-within-a-school, teaming, team teaching, advisory periods, integrated learning and flexible scheduling are necessary characteristics of an exemplary middle school, embraced by middle level reformers (Alexander, George, 1981; Bondi & Wiles, 1981; Wheelock, 1992). Central to these elements describing the exemplary middle school are those related to how relationships are structured so that students and staff talk and work together, increasing staff interdependence and reducing isolation. The California State Department of Education led the way with its seminal piece "Caught in the Middle" (CIM) (1987). Recommendations about middle schools were made including school structure and equity and student potential including a section that specifically addresses the ESL needs of the growing LEP population:

> ...it is urgent that English be taught more efficiently and effectively to California's large and growing population of limited English proficient students. These youth are too often relegated to a barren
> curriculum of remedial skills that does not prepare them for high school coursework. They are effectively foreclosed from any realistic considerations of higher education goals. (p. 60)

At the national level, the Carnegie Council on Adolescent Development of the Carnegie Corporation of New York, produced a major policy piece on the future of young adolescents. **Turning Points: Preparing American Youth for the 21st Century** (1989) "calls upon the education sector to start changing middle grades schools now." (p. 5) Central to these recommendations is the call for school people to work collaboratively to create communities for learning through curricular changes such as a core program, empowerment of teachers and administrators to make decisions about their middle students, involving families, fostering the health of young adolescents and ensuring success for all students.

Effectiveness

No discussion of school effectiveness can be initiated without acknowledging Coleman's study of Equal Educational Opportunity (1968). The Coleman Report, perhaps more than any other contemporary research, provided the impetus for the effective schools movement. Coleman's findings indicated that schools made little

difference in student outcomes, with socio-economic background of students being more important. The educational community, unwilling to accept that schools did not make a difference took on the challenge of identifying characteristics of effective schools. Organizational factors affecting student outcomes began to be investigated, often focusing on how to minimize differences in student learning outcomes.

After 20 years of research on effective schooling practices, the literature is filled with lists identifying characteristics of effective schools. However, only after two decades of effective schools research are social scientists beginning to identify some of the limitations of earlier definitions.

What does school effectiveness mean, and how can school effectiveness be measured? These questions guide researchers in their attempts to identify characteristics of successful schools. Ron Edmonds, one of the leaders of the effective schools movement, was among the first to attempt to address these seemingly simple, yet truly complex questions. Edmonds was also one of the first to introduce the needs of a specific population, such as low-income students, in the definition and measurement of effectiveness.

> We also use a particular definition of an "effective school": it is one where the proportion of low-income children demonstrating academic mastery is virtually identical to the proportion of middle-class children who do so. If a school fails that test, nothing else will qualify it as effective. (Edmonds, 1986 p. 95)

Equity standards that require low and middle income students to attain at the same rates became central to Edmonds' definition of effective urban schools. Purkey and Smith (1983) observe that most studies associated with effective schools did not use Edmonds' definition. Richards (1991) suggests that this "disinterest in equity outcomes is due partially to the necessity of conducting research with available data."(p. 31) Equity standards were difficult to measure due to absence of adequate data, resulting in eliminating this element in Edmonds effectiveness definition. Other explanations offered as to why the equity measure was dropped from effectiveness is the social and political context of education during the 1980's and 1990's, with the move towards "excellence", and the movement away from "equity". Indeed, what resulted during the excellence movement is the shift in definition of "effectiveness" to "performance" (Richards, 1990, p. 33). Class and racial variables were removed from the effectiveness equation. Instead, with its emphasis on performance, the managerial aspects of schools were emphasized.

The definition of effective schools had shifted again in the 1980's to "school improvement" instead of the previous "school performance." Advocates called for a "new context-sensitive definition" (Richards, 1990, p.32) which included criteria such as improved test scores, improved attendance, increased homework and instructional time,

community and parent participation, and the quality of support for students with special needs.

Today, school effectiveness definitions are influenced by the business community's concern for performance that will assure competition in the world's markets. This approach referred to as the "value-added" approach takes the position that the production function model used in industry should also be utilized in education, specifying inputs and outputs (Richards, 1991, p.33). Business leaders are less concerned with urban children being undereducated, and more worried about the quality and level of education youngsters are receiving before they enter the job market.

Scott (1976), examining effectiveness from an organizational perspective, acknowledges that political pressures influence how effectiveness is defined. Effectiveness, according to Scott is not a neutral term or concept, and arriving at its definition requires consensus among often competing values. Conflicting criteria or interests may result in constituencies having different definitions of assessing or measuring what constitutes effectiveness. And schools, as other organizations, operate in complex environments, affected by internal and external political pressures.

Scott (1976) goes on to identify another problem central to arriving at a shared definition of effectiveness. He suggests that defining effectiveness is closely tied to the goals of a school or an organization. He states that effectiveness "is necessarily related to the concept of goals--one of the most complex and controversial topics in organizational theory." (p. 3) Because it is often difficult for organizations to reach consensus on goals, it is difficult to establish what may constitute effectiveness.

Steers (1975) adds that early models of organizational success have been univariate, measuring only one dimension of effectiveness. More sophisticated models are necessary that are multivariate, attempting to measure effectiveness in terms of the sum of relevant criteria. Scott (1976) concurs that organizational effectiveness needs to be viewed by examining multiple properties or dimensions of effectiveness instead of relying on single indicators.

Three types of indicators of effectiveness have been identified: information concerning outcomes, processes, and structures. (Scott, 1976) Scott regards "outcomes as the quintessential indicator" (p. 22), implying that for most organizations, outcomes end up being the bottom line determining effectiveness. This is particularly true for schools, where grades, as one type of outcomes, are what the public uses to measure how well schools are performing. In California, the School Report Card is an example of the importance placed on outcomes as a measure of school effectiveness. The School Report Card was intended to provide the public with information about a school's effectiveness

using several measures such as school level achievement scores, student grades, with some schools being given a performance grade as an additional measure of its effectiveness.

Middle School Effectiveness

Measures of junior high school effectiveness remain unexplored due to often conflicting goals about the purpose of the junior high (Perlstein & Tobin, 1988; Scott, 1976). In other words, it is difficult to identify what constitutes an effective middle school when society, in general, has not reached consensus about its purpose.

The effective schools research generally examines secondary or elementary schools. For decades, the "junior" high school has borrowed and learned from the "senior" high school practices that have been either condemned or embraced by educators. Research on effective middle schools is limited and those studies that do address middle level school effectiveness tend to be descriptive, highlighting "desirable" or "exemplary" practices often found to be correlated with positive school climate, teachers working together, and personalizing the attention given to students. (Lipsitz, George, Oldaker, 1985) Middle level education research has focused on establishing what is out there that seems to work, as opposed to establishing what specific school practices lead to organizational effectiveness. For this reason research on middle school effectiveness is either outdated or not available.

Middle school effectiveness literature indicates that successful middle grades schools re-organize work arrangements and school routines creating a supportive learning communities for students and staff. This "ethos of caring" (Rutter, 1982) fosters working and solving problems together through school level processes such as interdisciplinary teams, teaching advisory programs, co-curricular activities and a school level emphasis on personal growth and development.

Immigrant Students and Middle School Effectiveness

As described earlier, research on middle school effectiveness is lacking, and so are data on school effectiveness and immigrant students. Wheelock's work on untracking comes closest to identifying effective school practices for LEP students in her piece on untracking.

An effective middle school, according to this body of literature, assumes that the salient characteristic of its student clientele is adolescence and that the accommodations need to be made on the psychological and developmental dimensions. Schools that acknowledge these individual differences are those which are effective. Interestingly, individual differences stemming from cultural, language, academic, or familial

backgrounds are not included in this narrow definition of "individual" differences. The literature implies adolescent homogeneity with regards to student background (culture, language, traditions about schooling and definitions of adolescence) thus narrowing the way in which students are perceived, handled and ultimately expected to achieve. This suggests looking at adolescents in isolation of their context or their background. This definition tends to de-contextualize the experience of specific groups of adolescents by failing to consider their backgrounds and simply clumping them all together under the adolescent label. Again, few middle level studies address student heterogeneity using a sociological perspective. Consequently, middle school effectiveness research does not acknowledge how schools have historically failed specific groups of students such as those that are members language minority, ethnic, or low-income students . In short, the effective middle schools evidence seldom acknowledges existing student group similarities and differences. Ironically, this is the developmental period when human beings become most conscious and aware of inter-and intra-group differences, as they forge their individual identities.

Two studies of effective bilingual schools are useful in this discussion, although these are not specific to middle schools. First, Carter & Chatfield (1986), in their study of bilingual effective elementary schools, report on the characteristics of three such schools in California. These effective bilingual schools were characterized by: 1) a well-functioning total system resulting in a school climate that promotes positive student outcomes; 2) specific characteristics critical to the development of effectiveness ; 3) a positive school social climate such as positive leadership,well-organized classrooms and clearly stated academic goals, objectives and plans; 4) high staff expectations for students and instructional programs including a strong demand for academic performance; 4) the denial of the cultural deprivation argument and the stereotypes that support it. While Carter & Chatfield's findings emphasize processes rather than structure they are useful in identifying characteristics of effective bilingual schools.

Second, Lucas, Henze and Donato's (1990) study of effective high school practices with Latino students is perhaps the only piece that examines effectiveness within the context of departmentalized structures. Six high schools in California and Arizona provided the data generated through extensive interviews with assistant principals, counselors and teachers. Students,were also interviewed, with most of these students being Mexican immigrants. Case studies were analyzed to "compare perceived realities across these schools" (p. 7). Informed by the effective schools literature, themes were derived from the data, resulting in eight features that promote school success for minority students. Figure 3 highlights these features:

Figure 3

Features of high schools that promote language minority student success

1. Value is placed on the students' languages and cultures.
2. High expectations of language minority students are made.
3. School leaders make the education of language minority students a priority.
4. Staff development is explicitly designed to help teachers and other staff serve language minority students more effectively.
5. A variety of courses and programs for language-minority students is offered.
6. A counseling program gives special attention to language-minority students.
7. Parents of language minority students are encouraged to become involved in their children's education.
8. School staff members share a strong commitment to empower language-minority students through education.

Source: Adapted from Lucas, Henze, Donato (1990)

While the above mentioned study has major implications for the education of language minority students, several findings are of particular relevance to this dissertation. Linguistic diversity, often resulting in academic diversity, can be addressed through several school level measures. First and foremost is acknowledging that there is diversity in the student population, along several dimensions such as English language proficiency, academic background, culture, and, ethnicity. Central to student success is offering access to the high-level core curriculum, and administrative leadership in strengthening this curriculum. Communicating with students and parents is part of the monitoring of individual student progress, which can be facilitated by school level processes, such as supporting the exchange of information in various ways. The authors conclude by recognizing the importance of integrating language minority students with mainstream students and by incorporating student differences into school programs.

In conclusion, this literature review reveals that until recently few studies have linked effectiveness and middle level education; no studies have linked middle school effectiveness and Mexican immigrant students. The characteristics of effective middle schools are often descriptive, focusing on addressing the developmental needs of students, excluding linguistic, academic, or ethnic diversity. This demonstrates the need for bringing middle schools into the effective schools arena. Consistent with its "forgotten child" legacy, middle school effectiveness remains basically unaddressed, often using narrow, traditional definitions. And as the changing demographics challenge middle level educators to identify effective middle school practices for language minority students, the need to articulate and expand the definition of effectiveness grows. Furthermore, this study is the first of its kind to recognize that in defining effective schools, we must acknowledge linguistic variation in English proficiency.

THE THEORETICAL FRAMEWORK: APPLICATION OF CONTINGENCY THEORY

The theoretical perspective orienting this study is called "contingency theory". This theory is based on two fundamental principles:

1) there is no one best way to organize

2) different ways of organizing are not equally effective (Galbraith, 1973, p. 2).

Although there may be a wide range of effective organizational designs, the differences between these and ineffective designs are not random. The form of the organization makes a difference (ibid), thereby raising new questions not addressed previously by organizational theory. Previously, classical organizational theorists proposed that some ways were better than others in organizing work arrangements. Contingency theorists, however, did not accept previous assumptions concerning organizational designs. Some organizational structures worked better than others; the fit between task and structure appeared to influence effectiveness. On what factors does the choice of organizational form depend? What are the characteristics of organizational contexts which appear to make a difference? What was the role of environment and task in choice of organizational design?

Lawrence & Lorsch (1967) examined variations in structure and proposed that 1) each subtask should be organized in a manner which facilitates the effective performance of that subtask, and 2) if tasks vary in predictability, different structures should be used. They referred to this aspect of the design problem as differentiation. The other design problem addressed the integration, or coordination of the subtasks to complete the larger task successfully . Their study is of particular significance in confirming that the "predictability of the task is a basic conditioning variable in the choice of organizational forms." (Galbraith, 1973, p. 4)

Lawrence & Lorsch's (1967) study supports theoretical claims made by contingency theory by confirming that the best way to organize depends on the uncertainty and diversity of the task. Contingency theory is particularly useful in examining the variations in middle school structure because immigrant middle schoolers represent diversity and uncertainty of input to the organization. For these reasons, contingency theory can be useful in studying which ways are more effective in organizing middle schools.

Task Uncertainty

Van De Ven, Delbecq & Koenig, (1976) refer to task uncertainty as "the difficulty of work undertaken by an organizational unit," (p. 324), while Perrow (1967)

operationalizes task variability as the number of work exceptions encountered by the unit. Galbraith (1973) views task uncertainty as it relates to information processes. As the task increases in uncertainty "it becomes more difficult to coordinate by impersonal means." (Van De Ven, Delbecq & Koenig, 1976, p. 324) Uncertainty requires more information processing (Galbraith, 1973) as well as changes in role allocations, schedules and priorities. (Perrow, 1967). That is, task uncertainty has a direct bearing on interdependent work arrangements.

March & Simon (1958) also propose that highly complex tasks (referred to earlier as uncertain, diverse, varied) are more readily accomplished by highly interdependent work arrangements between workers. Perrow (1967), and Lawrence & Lorsch (1967) also support the proposition that complex tasks involving a high degree of uncertainty, variation and non-routine decision-making require staffing patterns that permit more frequent exchange of information among staff during task performance. On the other hand, tasks that are predictable, repetitive, and more certain require less interdependent work arrangements and less information exchange.

Interdependence

Interdependence is the extent to which units or departments depend on one another to perform their individual jobs (Van De Ven, Delbecq & Koenig, 1976), or the degree of collaboration required among departments to deliver a finished project . (Mohr, 1971) "The fewer the one-person jobs and the greater the degree of task-related collaboration, the greater the interdependence." (Van de Ven, Delbecq & Koenig, 1976, p. 324)

Thompson's (1967) propositions tell us that as task uncertainty increases, the tolerance for isolation of units diminishes. Staffing patterns that require more formal, frequent interaction and exchange of information result in greater interdependence between units. Using Thompson's levels of interdependence it becomes apparent that the most desirable work arrangement to address task variability (diversity) is reciprocal interdependence.

Coordination

Coordination, simply stated, is the mechanism(s) that links action, bringing the pieces together to produce a larger product. It is second in importance to division of labor in organizational design because of its central significance to the organization's effectiveness. Coordination is necessary to secure agreement about basis for action or to provide information to subunits about relevant activities of others. It is the ability of people to coordinate their efforts that is essential in completing a task or achieving a specific goal. Differentiation (or departmentalization, as in middle schools) demands

some degree of coordination because specialty tends to separate individuals accordingly and is not intrinsically conducive to people talking with members from different subunits and departments. Coordination efforts must address interdependency and facilitate interaction among subunits.

Thompson (1967, p. 56) mentions that under some conditions, standardization can facilitate coordination. This involves the establishment of routines or rules which constrain action, and rests on the important assumption that the set of rules be internally consistent. Standardization requires that situations to which they apply be stable and repetitive (p.56). That is, the task must be certain and predictable in nature.

Managers generally give little attention to the effects of division of labor (Litterer,1965) and often assume that if work is divided adequately and people are told what to do, coordination will fall into place.

Information Processing

Reciprocal interdependent work arrangements and coordination by mutual adjustment are appropriate organizational responses to an uncertain task. These processes formally bring people together to interact and consequently address variability in the situation. However, providing routine opportunities for exchange is not sufficient in order to complete an uncertain task. Departments or units must have "something" to discuss specific to the nature of the task upon which their decisions will be based for task completion. This "something" refers to information that must be shared and exchanged between subunits or departments. People within organizations can be brought together to address a situation. However, if information relevant to the task is not available or discussed, decisions about the task may not be appropriate and it is likely that the task will not be completed effectively.

Galbraith (1973) conceives of organizations as "information-processing networks". He asserts that it is the variation in an organization's capability to process information which will determine its form and effectiveness. All tasks whether certain or uncertain require information processing (Galbraith, 1973).

As with interdependence and coordination, the type of information necessary and the mechanisms for processing this information are highly dependent on the nature of the situation or task. Predictability and certainty in input place less pressures on the organization to increase its capacity to process more information. As an organization faces new, unpredictable situations, the use of rules, programs and procedures must be supplemented by other devices. Galbraith mentions that as task uncertainty or unpredictability increases, the organization must adopt a strategy to process information. He adds that organizations that have more capacity for information processing necessary

for maintaining a given level of task performance will be more effective in working with uncertainty than those that reduce the amount of information needed. Failure to adopt adequate mechanisms for information processing will undoubtedly diminish the organization's effectiveness. A combination of these propositions and organizational variables constitutes the theoretical model utilized in this study. The major hypothesis derived from this model is:

Given differentiation and task uncertainty, reciprocal interdependence and coordination by mutual adjustment will be associated with superior information processing and greater organizational effectiveness.

More specific testable propositions can be derived from this abstract, theoretical proposition.

Hypothesis 1: In middle schools, reciprocal interdependence and coordination by mutual adjustment will be associated with organizational effectiveness in working with immigrant students.

Hypothesis 2: In middle schools, coordination by mutual adjustment will be associated with more and a higher quality of information processing concerning immigrant students.

Hypothesis 3: The quantity and quality of information processing about immigrant students in middle schools will be positively associated with the effectiveness of the school in working with these students.

Another hypothesis can be logically derived by combining the previous hypotheses:

Hypothesis 4: Information processing,reciprocal interdependence and coordination by mutual adjustment will be independent predictors of school effectiveness. It follows that schools high on all these variables will be the most effective schools in the sample.

RESEARCH DESIGN

Research Design

This research was conducted on a sample of 38 middle schools from around the state of California. School personnel filled out questionnaires on the organizational arrangements including information processing with respect to immigrant students. Data were collected from school records on immigrant students to measure effectiveness. The research design called for correlating organizational characteristics of the school (independent variables which include reciprocal interdependence, coordination by mutual adjustment, and information processing) with some measures of student outcomes (indicators of effectiveness, the dependent variable). The quantitative analysis was complemented with a descriptive qualitative investigation of the schools. This qualitative data was obtained through school visits 11 sites, and student interviews of 11 focus groups with four to eight students. Student interviews were conducted to gain insights about school effectiveness from the perspective of students.

Sample

The schools in this study were located throughout the state of California, varying in their proximity to the Mexican border. Of the 38 schools in the study, 13 are designated as junior highs, 12 as middle schools, ten as intermediate and three are elementary schools. School size ranged from the smallest school in the sample having 228 students to the largest having an enrollment of 1,473. The immigrant student population in these schools ranged from eight to 400 students, with the proportion of immigrant students ranging from 1% to 38%.

Thirty-two school districts are represented in this study with 18 of these districts being elementary school districts, 16 unified, and four union high school districts.

School principals at each school site were asked to identify an individual (respondent) at the school who worked with recent immigrant students and was familiar with the school. The core questionnaire had several items requesting information about the respondent's background and role at the school. Of the 40 respondents, 26 (65%) had a teaching position; seven (18%) were administrators, six (15%) were counselors, and one respondent (2%) had a secretarial position. Twenty-three respondents spend most or all of their day working with recent immigrant students, while 13 of the respondents spend less than half of their school day assisting these students (N=37).

Sources of Data

Questionnaire

A core questionnaire, developed by the researcher, was the primary source of data in this study. The questionnaire had 55 questions, with the initial questions obtaining descriptive data about the respondent (ethnicity, ability to speak Spanish) and the school site. The instrument also included school level questions such as background data on school size, and grade configuration. Multiple questions measured each of the concepts among the independent variables . The questions were developed by operationalizing the abstract variables of interdependence, coordination, and information processing.

Student Records

While the questionnaire generated data on the independent variables in this study, student records were the primary source of data on the dependent variable. Effectiveness was measured by student outcomes such as attendance patterns, suspensions, discipline referrals, and grade point average. Data obtained on student progress included attendance information, discipline referrals, suspensions, and grades.

Student Interviews

Immigrant students were interviewed during my visits to several schools. Questions about their experiences at the school, their classes, and teachers guided the

interviews. Examples of the interview questions were: A) Describe the first day you came to school. (Probing questions included: who worked with you? Did they give you any tests? What staff worked with you?) b) Who at this school can help you if you have a question about your schedule?

Data Reduction and Index Construction

Because of the extensiveness of the original or core questionnaire, (256 items) data reduction was necessary to manage the analysis. The data were reduced by aggregating items and creating indices. That is, those items identified as predictors of reciprocal interdependence were combined to obtain a reciprocal interdependence index. Indices were also created for the various dimensions of information processing. Coordination by mutual adjustment was measured by one item, not requiring an index. Indices for the dimensions of reciprocal interdependence and information processing, along with the coordination by mutual adjustment item were used for hypothesis testing.

The Cronbach Alpha was used as part of the procedure to calculate reliability for the indices I constructed.

ORGANIZATIONAL ARRANGEMENTS AND EFFECTIVENESS: DESCRIBING THE SAMPLE SCHOOLS

Descriptive statistics for independent and dependent variables provide an overview of the schools in this sample. This report on the distribution of key variables provides initial answers to such questions as: Were staff in these schools interdependent? Were schools in this sample well coordinated around immigrant students? Did any of these schools have high quality systems for information processing? How well was the sample of immigrant students doing within the schools of the study?

Reciprocal Interdependence

Reciprocal interdependence examines work arrangements in a general way and work flow in specific ways. The degree of collaboration between departments, the degree to which the intake of one department (or teacher) becomes the input for another department (or teacher) are examples of interdependence. The "team effort" concept whereby school staff plan together, work together, talk to each other, see each other and discuss issues around immigrant students are examples of reciprocally interdependent work arrangements. Because teaming arrangements are highly conducive to school staff coming together to talk and problem-solve around their students, teaming was one of the key indicators used to measure interdependent work arrangements. Also, reciprocal interdependence is important when addressing issues related to diverse students such as

immigrant students. Previously, the theoretical framework proposed that diversity, or variability in input, requires work arrangements that are reciprocally interdependent because face to face interaction is required to address the needs of this "imposed variability", represented by immigrant students. This variable was operationalized by asking respondent if the school had informal or formal teaming arrangements between teachers. The index of reciprocal interdependence ranges from 1-5. Scores of 4 and 5 indicate schools where formal collaboration, i.e. ,teaming, is in place.

I was interested in examining interdependence among schools in this sample, and what proportion of these schools, had high, medium or low levels of interdependence. Using the questionnaire items and a ranking system I decided that those schools obtaining the highest score were those with highest levels of interdependence, while those with scores of three and four had some interdependence amongst staff, and those with scores of two or one lacked interdependent work arrangements. For example, Clampett School received a score of "2", placing it in the low category, while Packard Junior High, with a "5" score was placed in the high category.

The schools in this study tend to lean towards the lower end of the reciprocal interdependence scale (scores of one or two) meaning that staff members do not depend on one another to make decisions about changes in an immigrant student's schedule. Table 3 below shows the frequency distribution of the reciprocal interdependence index.

Table 3
Distribution for Interdependence by High, Medium and Low (N=38)

Levels of Interdependence	# of Schools	%
High (5) *	1	2.6
Medium (3,4)	15	39.5
Low (1,2)	22	57.9

Mean = 2.3
SD= 1.65
*Numbers represent the cut points used to determine each of the levels.

This distribution is skewed with the majority or 22 of the 38 schools being on the lower end of the reciprocal interdependence scale, 15 in the middle and one of the schools having high levels of reciprocal interdependence. More than half (57.9%) of the schools in this sample do not have structures conducive to staff coming together to talk about changes in a recent immigrant student's academic schedule.

In the previous discussion of the reciprocal interdependence index I mentioned that teaming is central to measuring the concept of interdependence. A question included in the questionnaire attempted to establish if any form of teaming existed at that school, and furthermore if the teaming were formal or informal. I refer to this as the degree of teaming within a school. The data in this sample reveal that most of the schools do not have any form of teaming arrangements in working with the recent immigrant: 18 of the 38 schools (47.4%) have no teaming arrangements, or low degrees of teaming while seven (18.4%) have informal teaming, and 13 (34.2%) schools report having formal teams (high degrees of teaming) in working with recent immigrant students.

In further analysis and examination of the data I found that the context of teaming arrangements for the recent immigrant in middle schools is affected by larger school level issues of teaming. Generally, schools that have some form of teaming (formal or informal groups responsible for students) for all students will also have teams specifically set up to work with immigrant students. Of the 20 schools that have either formal or informal teaming arrangements, 17 also have teams specifically for immigrant students.

Coordination by Mutual Adjustment

Coordination by mutual adjustment is operationalized as the mechanism that links the actions of the staff. For example, how do school people decide when a student is ready to be transitioned from the newcomer center/ESL classes? Are there regularly scheduled meetings that staff attend to make recommendations on a student's academic program? Has the organization attempted to facilitate coordination by assigning someone to make sure people come together to discuss issues about their students? Are these important decisions made by one individual or are staff encouraged to coordinate their recommendations? Finally, are these processes spontaneous and informal, or are formal organizational devices (meetings) used? Schools that provide release time or common planning periods designated to deal with the educational needs of recent immigrants are schools expected to be high on coordination. These are examples of the questions designed to determine the degree of coordination at a school.

As with the interdependence index, the school scores were used to break down the sample into the high, medium and low categories. Breaking down this information further by the number of schools and levels of coordination reveals that most schools have some coordination processes for addressing a student's transition from classes for immigrant students. Twenty schools, or 52.6 percent coordinate minimally in working with the recent immigrant Thirteen, or 34.2 per cent, of the schools have medium, and five or 13.1% of the schools have high levels of coordination. See Table 4, below for distribution of coordination by high, medium, and low.

Table 4
Distribution for Coordination by High, Medium, and Low (N=38)

Levels of Coordination	# of Schools	%
High (4*)	5	13.1
Medium (3)	13	34.2
Low (0-2)	20	52.6

Mean= 2.4
S.D.= 1.5
*Numbers represent the cut points used to determine each of the levels.

Coordination levels are surprisingly low in this sample with most schools being grouped around the "low" and "medium" levels of the scale. Only five schools have high levels of coordination when it comes to making changes about a student's schedule. Decision-making in the majority of schools appears to be individual and not collective behavior. This may also be indicative of staff isolation with few opportunities to talk and work together.

Breaking down the sample according to those schools that have formal, informal, and those that have no teams and then cross-tabulating with levels of coordination reveals the following: in general, teaming has little effect on coordination around work related to the recent immigrant. Earlier analysis confirms this finding; Pearson correlation results between coordination and teaming (are there teams assigned to work specifically with immigrant students) show no relationship, ($r = .0248$, n.s.). Schools with teams fall more frequently into the "low" category of coordination (53.8%) and less frequently into the "high" category, 7.7%., with only one school with teams meeting around the transitioning of students. This leads one to wonder what the team is doing if not dealing with central issues such as the transitioning of their students. Of the seven schools with informal teams, three fall into the "high" category. Schools with no teams have one school in the "high" category, as did schools with formal teams. Schools with no teams have the majority of their schools, 61.2%, in the "low" category, as did schools with formal teams.

Earlier analysis revealed no correlation between coordination and reciprocal interdependence, ($r= -0.067$, n.s.) supporting the weak effect of "teaming" (concept central to measuring interdependence) on coordination.

There are slight differences between interdependence and coordination levels in these schools with both distributions having most cases clustered around the "medium" and "low" categories. One difference is that there are five schools in the high-coordination category and one in the high-interdependence category. Aside from this,

few differences exist between these two concepts. Schools in this sample tend to have low interdependence and low coordination levels. (Although in many cases a school is not low on both these measures).

Collaboration

Hypothesis One required combining the coordination item and the interdependence index. These two indicators are similar because they examine the dimensions of coordination and interdependence, resulting in collaboration. Breaking down the Collaboration index into "high", "medium" and "low" levels of collaboration reveals that 26, or 69% of the schools have low levels of collaboration. Twenty-six per cent of the schools had "medium" levels while 5.3% had "high" levels of collaboration. Table 6.4 shows the distribution for collaboration.

Breaking down the school sample into those schools with formal teams reveals that schools with some form of teaming (either formal or informal teams) tend to have higher levels of collaboration. For example, 77% or 10 schools (out of 13) with formal teams are in the "medium" range, and six schools, of 7, with informal teams.

Teaming arrangements, whether formal or informal, have an effect on degrees of collaboration in a school. Schools with formal and informal teams have schools in the "high" category and few schools in the "low" category. Schools with no teams have zero schools in the "high" category, with most schools that have no teams being clustered in the "medium" and "low" categories.

Information Processing

Information processing, in a general sense, includes the quantity and quality of information that is exchanged and shared. There are seven dimensions of information processing reflected in separate indices constructed from the questionnaire. The information processing variables include frequency of use of written/enrollment information, frequency of use of oral/informal information, variety of information, (type or kind of information that is exchanged; referrals and exiting students from classes, for example), vertical strategies (what systems are in place for keeping or circulating information; computer, record-keeping , for example), lateral strategies (face-to-face strategies for exchanging information), and a composite index combining quality of information indices. The comprehensiveness index combines all of the information processing variables and is a broad, general measure of information processing. Table 5 below shows the descriptive statistics of the information processing variables in this study.

Table 5
Descriptive Statistics of Information Processing Variables (N=38)

Variable	Mean	SD	Min.	Max.	Range of Possible Scores
•Frequency,Written-	5.4	2.0	0	10	0-10
•Frequency,Oral	9.3	2.8	2	12	0-12
•Variety, Criteria	5.3	2.1	1.6	9.7	0-10
•Vertical	6.2	1.9	3	10	0-11
•Lateral	2.9	1.9	0	6	0-6
•Composite	11.7	3.3	5.3	17.6	0-21
•Comprehensive	20.1	5.8	6.3	31.6	0-32

The schools in this sample tend to have a high degree of variability along the information processing dimension. Breaking down information processing into various dimensions and comparing these measures according to the difference between observed mean and 50% of the total score possible reveals that schools do better along some measures than others. For example, schools in this sample have a higher mean for information that is oral and informal (mean=9.3; more than 50% of the total possible score), suggesting that these schools do better on oral/informal exchange. The vertical processes of information exchange (written, documented processes not requiring face to face interaction) is another dimension on which schools in this study do better (mean=6.2). Lateral processes for information exchange include those which require face-to-face interaction. Schools in this sample do not do as well in utilizing this strategy for exchange of information as evidenced by the mean in the sample, 2.9, less than 50% of the total score possible This supports earlier findings related to the low levels of interdependence in these schools. As stated previously, one would expect to observe high levels of the use of lateral strategies where there are high levels of interdependence amongst staff. But if interdependent work arrangements are not present, lateral processes of information exchange become difficult to maneuver. Finally, examining information processes using the composite and comprehensive indices demonstrates that schools do well in an overall quality and information processing measure with both indices showing means of 11.7 and 20.1, respectively.

Summary

Breaking down schools by degree of formality of organizational structure reveals that levels of information exchange (as well as interdependence, and coordination) are affected by whether a school has a formal, informal or no teams. Schools with teams,-- formal or informal-- do better on information processing than schools with no teams. In

conclusion, formal or informal arrangements that bring people together are associated with better information processing. Schools with no teams, or those with few opportunities to come together tend to fare poorly on exchange of information. It follows that "formal" events are going to require some preparation, usually in the form of information. This need will generally result in availability of data prompting discussion and exchange. Also, the low level of lateral communication on the part of some schools with formal teams suggests that some teams operate by exchanging written information.

Measurement of Dependent Variable

Effectiveness - Its Dimensions

The dependent variable in this study is organizational effectiveness. Concepts of effectiveness are drawn from the literature on indicators of school effectiveness and this researcher's experiences in working with the Mexican immigrant population. I predicted that those schools which address the academic needs of their students are more likely to have students who attend school regularly, who receive average and above average grades, and who do not experience significant discipline or suspension problems. It follows that those schools that work well with students will shift their efforts from dealing with disciplinary issues and will be able to focus more on their students' academic needs. Effectiveness was measured along several dimensions such as attendance, discipline, suspensions, and grade point averages. In the following section I describe the indicators that measure each of the effectiveness dimensions.

Excused Absences Average

Excused absences refers to those missed days which are excused according to school law. Absences are excused when these are due to illness or personal emergencies. Schools see these absences as legitimate, thus excusing students. Excused absences are funded by state funds and for accounting purposes count as if the student were present. The sample mean (N=29) of the average number of excused absences is 4.8 days for a seven month period (October-April). Dividing this average by seven months results in 0.6 absences per month, per school. This means that the average excused absences by month per school are low, indicating immigrant students in this sample attend school regularly.

Most schools in this sample fall in the "medium" category of attendance, while the "high" and "low" categories have the same percentage of schools (27.6%) in these levels. It is important to note that the "high" category is for the purpose of getting a sense of where schools lie in this sample. While these school averages have been categorized as "high", these attendance averages, over a seven-month period are in reality "low". That is,

most schools do not experience absence problems with their immigrant student population.

Looking at these data by using the raw numbers used to calculate averages provides another perspective in describing this sample. For example, Clampett school reported eight excused absences (for its eight students), while Thompson school had the maximum of 488 excused absences reported for its 81 immigrant students. Most schools reported small numbers (40's to 100's) and the mean raw number of absences in this sample was 147 days (number of immigrant students ranged from 8-400). Again, looking at excused absences through raw numbers over a seven month period shows another perspective, confirming that immigrant students attend school regularly, having low absence rates.

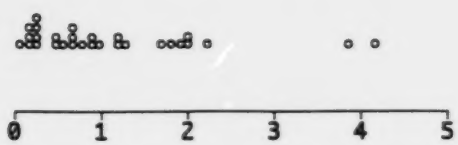
It is evident that most schools and their immigrant students in this sample have exemplary attendance records, with only a few schools having the majority of the excused absences.

Average of Unexcused Absences

Unexcused absences are those school days missed for reasons not related to an illness or personal emergency. The school does not excuse or accept the reasons for these absences, and the state does not provide funds for these absences. Absence data were collected and calculated for a seven month period. The unexcused absence average per school is .1 unexcused absence per month. As previously, we see that unexcused absences are not a problem for this population with students attending regularly. Breaking down the average number of unexcused absences into schools that have high, medium, and low levels also confirms this finding.

In examining the density of the distribution a pattern begins to emerge. Most schools are clustered towards the middle and low ends. There are a few outlier schools on the high end of the distribution, affecting the overall sample average for unexcused absences. See Table 6, for this frequency distribution.

Table 6
Density Distribution of Average of unexcused absences (N=29)



Average of unexcused absences

The table above shows that most schools are clustered around the lower ends of the distribution with two schools being the outliers near the an average of four and five. A similar pattern emerged with the excused absences where a few schools were the ones reporting the highest number of absences. I was curious to examine the raw data and to see what was happening in these particular schools. Were these "attendance problems" concentrated in problematic schools? In examining the raw data within these "outlier" schools I observed that eight schools were high in the excused Absence average category and two in the Unexcused Absence Average category. The two schools Herbert and Hemingway Middle Schools, (school names have been changed) with high numbers of unexcused absences also reported high levels of excused absences, suggesting that both these schools experience attendance problems with their immigrants. However, in examining the raw data once again, one sees that the majority of absences within these schools come from a few individual (1-3) students within these the schools. For example at O'Shea Middle School one student had 23 excused absences, while 3 students had 15 absences. At Hemingway Middle School, one student had 63 excused absences, constituting a major portion of the absences reported by the school. In the unexcused absence category, one student at O'Shea had 28 absences and at Hemingway one student had seven absences.

Immigrant students attend school regularly and the absences in "problematic" schools can be accounted for by a handful of students. In other words, the student population within each of these schools had healthy attendance records, and what made these school appear to have high average rates was a few students who had most of the excused absences.

Average Number of Disciplinary Referrals

Disciplinary referrals were defined as any time a student is sent to the office by teacher/staff for behavior that could not be addressed/resolved by the teacher. The mean obtained for the disciplinary referrals was 0.6 per student. This reflects few disciplinary referrals for this group in general, since the mean school score fails to reach having one discipline referral per student. Unlike the stereotypical view of the immigrant population as "difficult to manage", the data provide a picture of students who conform to classroom rules. Dividing the sample into high, medium and low levels reveals the same results. The data reveal that 58.3% of the schools in this sample fall in the "low" category of disciplinary referrals, followed by 20.8% of schools falling in the "medium" and 20.8% making the "high" category. While these data reveal that immigrant students are well-behaved students, the averages calculated and used to make up the "low", "medium" and "high" levels are unexpectedly low. That is, having worked with middle school students for many years I expected to see schools give a significant number of disciplinary referrals, and did not expect "none" or "zero" discipline referrals reported. Even well-behaved students receive a couple of disciplinary referrals per school year without this being considered a "problem child" or a worrisome situation. I was not surprised when I saw many of the "model" students facing the vice-principal, often for a minor violation of school rules or misbehaving (often disagreements with adults). What was worrisome was when the referrals became frequent and the violations increased in their severity. Again, knowing middle schools and adolescents made me expect disciplinary referral averages to be much higher than 1.69 discipline referral per school. What could account for the low numbers of disciplinary referrals reported?

I also looked at each school's raw data on disciplinary referrals to see if there were additional information that would shed light on my suspicion concerning the low average rates. One of these schools was Hemingway Middle School, discussed earlier in the section on unexcused absences.

Earlier in the discussion of vertical quality of information processing processes I noted that schools do not do well on exchanging information through documented, formal channels. Institutionalized systems are often lacking, making it difficult for vertical processes of information exchange to occur. The data earlier also revealed that informal/oral exchange of information is more likely to occur in these schools. Knowing this about our schools we can see one possible explanation for why the number of reported disciplinary referrals is low. Students may be referred for disciplinary reasons, but these referrals are simply not being documented.

The original intent of my re-visit to Clampett Intermediate on June 2, 1992 was to interview students. Approximately three months before, I had visited with Mr. Soto, (all names have been changed) the districts' superintendent to describe my study and to obtain permission to include the school in my study. After obtaining permission I was given the name of the contact person who would complete the questionnaire, Mr. Velázquez. Mr. Velázquez would also select a few students, and arrange for the student interviews.

The Clampett School questionnaire was one of the last to be returned and it was only after numerous calls to remind Mr. Velázquez that it was returned. I had not received the promised student data and decided to call Mr. Velázquez. I would be visiting his school within the following weeks and could offer any assistance. Mr. Velazquez told me that he had not had an opportunity to examine what I needed thoroughly, but that it seemed like a lot of information that he could not retrieve. I asked about specific areas that were troublesome, but he was unable to state anything specific. I began to talk him through what was being asked. I remember our conversation distinctly when he stated "I guess it isn't that bad. I guess I just felt overwhelmed when I looked at the letter. I think I can get what you need". I visited Clampett a couple weeks later to interview the students expecting to pick up student level data. Mr. Velázquez was expecting me, walking me to the classroom to pick up students for the interview. I had an opportunity to meet the classroom teacher and was instructed to use the nurse's room for our discussion.

At Clampett, I interviewed four students, two 7th graders, and two 8th graders. All were boys, with the exception of Elena, one of the 7th graders. The students were eager to be interviewed. The interview was in Spanish.

One of the questions I asked to get at the concept of information processing is the following: Describe the first day you came to this school. Who worked with you? Did they give you any tests? Did anyone show you around the school? What staff worked with you?

Clampett students responded "No!" unanimously to "did they give you any tests upon enrollment?". When I probed by asking, "Who took you to your classroom?" they all referred to Cynthia, one of the school office clerks. Elena added: "When I started school I came to the office and Cynthia took me to the classroom. Before taking me there she told me I had to have clothes to change for PE. She also told me not to come through the office to get to the classroom, and showed me how to get there through the outside."

I asked students: if you have any questions about school or your classes who in the school (adult) can you go to ? They agreed that their teacher Mr. Durán was one of them; one student mentioned Mr. Velázquez. Arturo mentioned Mrs. Ono as someone

he would not go to for any help. Immediately the remaining students agreed and began to tell horror stories about this teacher. Finally, I asked the group what they liked about their school. The themes that surfaced from their responses was their teachers' understanding; they especially liked them because they all spoke Spanish, except Mrs. Ono. Undoubtedly, these students felt safe, supported and understood by their teachers. Clampett is a small community with a population of approximately 3,000. Families are close-knit and most of the teachers grew up and live here. Teachers have close relationships with their students, often having worked with many children from one family. It was not surprising to hear students tell me that they felt comfortable speaking with Mr. Durán because they knew him since pre-school.

After my interview with Clampett students, I stopped by Mr. Velázquez' office to pick up the student level data. He did not have the data and I offered to assist. We started out by attempting to generate a list of students, which proved difficult, resulting in eight names. While I attempted to go through cumulative files Mr. Velázquez returned to the main office to see if he could find other needed data. It was apparent that there was difficulty in retrieving student information at this school. I remind the reader of the small size of the school, 228 students.

The students interviewed do not recall any test or assessment during the first day, indicating a strong possibility that students are given an academic program without much information processing around their immigrant status. Examining the low score of frequency of use of written/enrollment information Clampett received, coupled with the students' testimony, it appears that this school does not have established channels for documenting written information about its students. Few ESL classes are offered to students because the administration believes that bilingual education is not necessary because all the teachers (except one) are bilingual. Its students nonetheless appear comfortable and happy at their school and with their teachers. I too found the school climate comfortable during my visits. While this school may not have formally established structures for exchange of information about their immigrant students, it does not imply that Clampett is not a caring school. Some of the evidence suggests that indeed students see Clampett as a caring school with caring teachers. The environment appears familial rather than one of a formal organization. Unfortunately, the support extended to students can only go so far if arrangements for obtaining and exchanging academic information on students are not in place.

The data appear to indicate that there may be a relationship between low levels of information processing and the absence of disciplinary referrals in the record. This school may rely on an informal system of control. In conclusion, it is not unusual to find

schools simply do not have established documentation systems for their disciplinary referrals. The lack of proper documentation may be one reason why the numbers reported are low.

Recognizing the limitations of poor record-keeping in some of the schools in my sample provides one explanation for the low rates of disciplinary referrals. However examining schools in which I have confidence in the record-keeping also reveal relatively low rates of disciplinary referrals. Confidence on the record-keeping at these schools was based on the following: a) I visited these schools personally, and observed that immigrant students were identified; records containing assessment, academic, and other relevant student information were available to staff; b) there was a person assigned to collecting student information; several of these schools were receiving grants or categorical funds requiring accurate information necessary for funding; c) I checked those schools I had visited and had evaluated as having adequate record keeping systems; to see how their scores along the various dimensions of information processing, and found that their "high" scores corroborated my observations. Based on these reasons, I identified several schools in whom I had confidence in their record keeping.

Suspensions Average

Suspension occurs when a student is not allowed to attend school as punishment for severe school disruptions attributed to that student. Descriptive statistics for the suspension referrals showing that the mean score for the suspension average variable as .28, approximately one quarter of a suspension per student.

Examining this data by low, medium and low levels shows that suspension average levels are low for this population, indicating that 51.9% of the schools are in this category, with 29.6% are medium and 18.5% of schools are in the high category. While these averages are low these estimates tend to be more accurate than disciplinary referrals. Generally, suspensions require specific procedures (such as parent conference) and documentation. Because of the severity of this action, schools tend to maintain more accurate suspension records. Note that more schools provided data on this variable (N=27) than with disciplinary referrals (N=24), suggesting that suspension data may be more easily accessible because it may be documented more consistently.

Further examination of the data shows that two schools reported zero (one of these schools was Herbert Intermediate, discussed above) and one school had the highest number of suspensions (not averages) at 39, followed by another at 27. The mean number of suspensions for this sample is eight, with most schools reporting suspension numbers in the tens and teens. These suspension numbers tend to be more reliable than discipline referrals because most schools are mandated by their district or the state to

document events leading up to a suspension. There are formal procedures that must be followed for a suspension one of which is writing up of the suspension, followed by a parent conference. As with the disciplinary referrals, I looked at the raw data to see if a few students were responsible for most of the suspensions. I found that in the two schools with the highest numbers of suspensions this was true. At Taylor Middle School, two students had the majority of the suspensions with one having nine suspensions and another having 11. The remaining suspensions were distributed throughout the other immigrant students. At Northside Middle School one student had 16 suspensions another had six. The reader will recall that Northside had a total of 29 total suspensions. Thus, two students account for 75% of the suspensions, indicating that suspensions tend to be dominated by a few students within these schools.

Grade Point Average

As with the previous effectiveness measures, school staff were asked to report overall grade point averages for the first grading period. If the school were on a quarter system schools were asked to combine the first and second quarters to obtain an average from the two scores. The grade point average data was aggregated to obtain a grade point average, school level score. Grade point averages for this sample are normal, with the mean grade point average for this sample being 2.5 or its grade equivalent, approximately a C+. Some students have GPA's that are as high as 3.2, with the lowest GPA being .8. Most immigrant students perform at average levels, according to these data, which supports previous evidence that these students are not students failing their classes. Table 7 below shows the distribution of GPA according to how many schools were in the High Medium and Low levels.

Table 7
Distribution of GPA by High, Medium, and Low Levels (N=25)

GPA		# of Schools	%
High	(3.0-4.0)*	1	4
Medium	(2.0- 2.90)	22	88
Low	(.8 - 1.9)	2	8

*Numbers represent the cut points used to determine each of the levels.

The table above shows that 88% of the schools have an average GPA that falls in the medium category with eight percent of the schools having low GPA's and one school having a mean that is in the "high" GPA category. What this means is that students in this sample overall vary around an average performance and are not consistently low performers; as a group they receive average grades and consequently have average

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GPA's (2.0-2.9) with the mean GPA for this population being 2.5. In summary, immigrant students are average students receiving passing grades in their school work.

Table 8

Descriptive Statistics for Effectiveness Dimensions

Variable	N	Mean*	Min.	Max.	S.D.
Excused Absences Average	29	4.8	1.8	7.5	1.5
Unexcused Absences Average	29	1.0	0.1	4.2	0.9
Discipline Referrals Averages	24	0.6	0.0	2.9	0.6
Suspension Averages	27	0.27	0	1.6	0.3
Grade Point Average	25	2.5	0.8	3.2	0.5

* Means, Minimum, Maximum and Standard Deviation refer to school averages.

Comparing the Performance of Immigrant Students with that of Non-Immigrant Students

I found low absolute rates of absences, disciplinary problems and average performance on the part of immigrant students. Because schools differ in record keeping practices in the way that grades are given one might ask: How do immigrants in this sample compare to the general population of students? In this section I compare immigrant to non-immigrant students with regards to attendance, suspension patterns and grade point average.

Attendance

Although, school level attendance data for the non-immigrant population was not collected by this researcher, statewide attendance rates are provided for the purpose of comparison. Since 1991, school level attendance information has not been collected by the State or local county offices. Unfortunately, the school level data collected by the California State Department of Education for school years 1986-91 are not available either. James Fulton, a consultant with the State Department's School Research Unit, and familiar with attendance data, provided state-wide averages for K-12 grades, for 1991 as 93.4% to 93.6% (Interview, August 30, 1994). These averages were obtained based on 180 days of ADA revealing that most students in California attend school

regularly, - - 93% of the time. Olsen (1988) found that "immigrant students are probably absent no more or less than other students" (p. 91). Mr. Fulton added that the California averages are comparable to national averages, and that the California data revealed that it is generally a few students within each school or district that account for the majority of the absences. Examining the attendance data for this study revealed a similar pattern in the immigrant student population; only a few students (often 1-3 in each school) accounted for the majority of the absences.

Also, examining the attendance data for those schools with adequate record-keeping and having high levels of information processing provides further evidence that immigrant students attend school regularly. Washington and Northside Junior Highs are two schools with high levels of information processing and are used as examples. Jefferson reported an average 4.5 days of excused absence average while Northside reported an average of 5.5 I estimated that attendance days requested for this study at 136. Using Jefferson's and Northside's attendance averages I calculated their averages at 95% and 96% respectively.

In working with middle level, Mexican immigrant students I, found that my students in general did not have attendance problems and attended school regularly. As these data reveal, I also found that there were often a few individual students who had chronic absence problems, with the majority of students attending school regularly despite difficult circumstances. Often, these youngsters were those experiencing difficulty negotiating their transition to their new school and with their new set of peers successfully. These were the youngsters prone to falling through the cracks and who often needed the most encouragement and support from the school and staff. Unfortunately, the longer these youngsters remained away from school, the more difficult it was to return to school. And in a large-sized school it is not uncommon that these "individual" needs are overlooked. In organizational terms, the variability in input (diversity of the group) can best be handled by staff that works and makes decisions together, as they exchange information about their students. In this way all students' needs are addressed adequately and routinely, minimizing overlooking those students that may tend to fall through the cracks regardless of underlying reasons.

Suspensions

How do suspension rates for immigrant students compare with those of non-immigrant students? Rumbaut (1990) examined total suspension of K-12 students for the 1984-85 school year for California and found that Blacks were suspended more frequently in relationship to their enrollment rates, followed by Hispanics and Anglos, East Asians, Vietnamese, Laotians and Filipinos. The lowest suspensions in this study

were observed for the Cambodians and the Hmong. Mexican immigrant students are included in the Hispanic category, making it difficult to determine how much Mexican immigrant students contribute to the suspension statistics.

Further investigations by Rumbaut and Ima reported on school suspensions in San Diego. They found that the proportion of suspensions that were immigrant students is either less than or equal to their overall representation in the school population. (in Olsen, 1988, p. 92). They also found that the number of suspensions had declined, with the exception of Asian students, particularly in junior highs, where suspensions had increased 53% (Olsen, p. 92). Indochinese students were suspended less frequently than other students, but their suspensions were increasing more rapidly. In my study, overall, suspensions are not a problem for this population with the majority of students having no suspensions and with a couple of students suffering most of the schooling suspensions. The average school score being 0.28, less than one whole day of suspension per student, is low, providing further evidence that this student population is not problematic. It is important to recognize that immigrant student populations are concentrated in larger schools located in urban settings. Often these schools have higher absentee rates, more suspensions and teachers that may be less prepared to address the needs of Spanish dominant students. While my data suggests that this population is attending school regularly, is not problematic and has average grades, further research is necessary to examine how school climate, context, curriculum, resources and staff affect attendance, behavior and achievement.

Grade Point Average

Generally, GPA data is collected on high schools students, and it is this information that I use as a source of comparison in this discussion. Rumbaut's study of immigrant students in California found that the mean GPA for high school White Anglos is 2.24; for female LEP Hispanics, 1.85, male LEP Hispanics, 1.57; female African-Americans, 1.85, male African-Americans, 1.54; female LEP East Asians, 2.95; male LEP East Asians, 2.68. Among immigrants the highest GPA's are found among Chinese, Korean, Japanese, Vietnamese and Filipinos.:

> Remarkably, with the main exception of Hispanics...all of the non-English immigrant minorities are outperforming their English-only co-ethnics as well as majority Anglo students. This applies in most cases both for FEP and LEP students, although clearly FEP students are doing significantly better than their LEP co-ethnics. (Rumbaut, 1991, p. 10)

Previous work by Olsen (1988) corroborates Rumbaut's (1991) findings that Asians, as a group, receive higher grades. Olsen's research "found no clear patterns among Hispanics regarding GPA's." (p. 87)

While the research by Rumbaut and others is useful in getting a sense of academic achievement by various ethnic groups, I remind the reader that GPA data in these studies for high school students. Because GPA data for middle school students is not presently collected and/or available I turn to data provided by those schools which I believe to be reliable and use this as evidence for the claim that immigrant students academic performance is generally average or better.

Again, I turn to Washington and Northside School data. Washington's school level average GPA is 3.2 (male and female) while Northside's is 2.5. Washington seems to be an outlier school , while Northside's average GPA reflects the entire sample's GPA--2.3-more closely.

ORGANIZATIONAL ARRANGEMENTS, INFORMATION PROCESSING AND SCHOOL EFFECTIVENESS: RESULTS

I review the general theoretical propositions derived from the theoretical framework. The four hypotheses derived from this proposition are tested. Interpretations of these results are included in this chapter.

General Theoretical Proposition

The general proposition and its four hypotheses deal with the relationships between coordination by mutual adjustment, reciprocal interdependence and information processing and organizational effectiveness. The proposition states that:

> **Given differentiation and task uncertainty, reciprocal interdependence and coordination by mutual adjustment will be associated with superior information processing and greater organizational effectiveness.**

More specific testable propositions were derived from this abstract, theoretical proposition.

Hypothesis 1: In middle schools, reciprocal interdependence and coordination by mutual adjustment will be associated with organizational effectiveness in working with immigrant students.

The prediction is that schools high on reciprocal interdependence and coordination by mutual adjustment will be more effective. I combined the reciprocal interdependence index and the coordination by mutual adjustment item into an index, referred to as collaboration. Effectiveness is the dependent variable, broken down into

the various dimensions described earlier (excused and unexcused absences, disciplinary referrals, suspensions, and grade point average, including the breaking down of the percentages of grade point average into High, Medium and Low grade point). The Pearson correlation was used to determined the strength of the association between collaboration and the eight effectiveness dimensions. Table 9 presents the intercorrelations between collaboration and effectiveness.

Table 9
Pearson Correlations of Collaboration and Effectiveness Dimensions

Effectiveness Measures	Collaboration
Excused Absences Average	-0.047 (N=29)
Unexcused Absences Average	-0.173 (N=29)
Discipline Referral Average	0.219 (N=24)
Suspensions Average	-0.102 (N=27)
Grade Point Average	0.289

Disciplinary referrals (r = 0.219), and Grade Point Average r=0.289, show positive, although not significant relationships.

Interpretation of Hypothesis One

The hypothesis was not supported because the Collaboration Index, when correlated with the five measures of effectiveness did not have a significant, relationship with any of the measures. One would have expected that poor performance would be negatively related to collaboration.

The explanation for these results is not clear to this researcher. One possible explanation for these results is that combining the concepts of coordination and reciprocal interdependence (which were not related, r = 0.067) masks some of the relationships that may exist between coordination and information processing, and interdependence and information processing. For example, isolating coordination and correlating it with the effectiveness dimensions reveals positively significant relationships with three of the dimensions. Table 10 shows these correlations.

Table 10
Pearson Correlations of Coordination and Effectiveness Dimensions

Effectiveness Measures	Coordination
Excused Absences Average	-0.041 (N=29)
Unexcused Absences Average	-0.359* (N=29)
Disciplinary Referral Average	0.537** (N=24)
Suspensions Average	-0.146 (N=27)
Grade Point Average	0.393* (N=25)

* $p < 0.025$
** $p < 0.005$

The above correlation shows relationships that one would expect such as the negative, significant relationship of coordination and unexcused absences average ($r = 0.359$; $p < 0.025$), and positive significant relationships with grade point average ($r = 0.393$; $p < 0.025$). The significant relationship between coordination and the disciplinary referrals is opposite to the direction predicted.

Hypothesis Two

Hypothesis 2 states: In middle schools, coordination by mutual adjustment will be associated with more and a higher quality of information processing concerning immigrant students.

Hypothesis 2 predicts that those schools that coordinate their efforts in working with the recent immigrants will process more (quantity) and a greater variety (quality) of information. In testing this hypothesis I used the coordination item and the seven information processing variables. I used the Pearson correlation to determine the strength of association between coordination and these information processing variables. Table 11 presents the results of these intercorrelations.

Table 11
Pearson Correlations of Coordination Index and Information Processing Indicators (N=38)

Information Processing	Coordination
Variety - Quality of Information Index (variety of criteria of information)	0.269*
Vertical -Quality of Information Index (record-keeping systems)	0.343**
Lateral - Quality of Information Index (face-to face exchange)	0.198
Frequency of Enrollment/Written Index (enrollment information)	0.073
Frequency of Oral/Informal Information Index (informal discussions)	0.220
Composite Quality - Information Index (combined quality items)	0.339**
Comprehensive Information Processing Index (combined all information processing items/indices)	0.285*

* $p < 0.05$
** $p < 0.025$

The results of this analysis show positive significant relationships between coordination and three indices of quality of information processes, and the comprehensive information processing measure. The variety of information index had a positive significant relationship with coordination ($r = 0.269$; $p < .05$) as did the vertical dimension ($r = 0.343$; $p < .025$),and the combined measure of quality of information processes ($r = 0.339$; $p < .025$). Finally, the comprehensive information processing index was also significantly and positively correlated with coordination ($r = 0.285$; $p < .05$).

The results show no relationship between coordination and the quantity index that measures frequency of exchange of written/enrollment information, $r = 0.073$, n.s. The relationship between coordination and the quantity of information index that measures frequency of exchange of oral/informal information is positive, although not significant, $r = 0.220$.

Interpretation of Results of Hypothesis 2

Coordination was significantly, and positively related to two of the three indices measuring quality or variety of information. Also, the comprehensive information processing index showed a significant, positive correlation with coordination. Any of the responses on the coordination index which were given a high score required some kind of information to be exchanged. However, the weak relationship between coordination and lateral processes suggests that information may have been available as documents but not as a consequence of mandated exchange. This suggests that the *kind* of information exchanged is more closely associated with coordination than the *frequency* of exchange of information. Because the coordination item measures interaction such as making group decisions about transitioning (exiting) of immigrant students from ESL classes. This finding also suggests that the use of formal meetings to make decisions is not related to frequency of use of information nor to more formal discussions. The lateral processes index, which is another quality of information index, was the only quality measure which was not correlated with coordination. Lateral processes are those which require face-to-face interaction and are highly dependent on interdependent work arrangements, such as teaming. Correlating coordination with the teaming item from the questionnaire (Are there teams at your school to address specifically recent immigrant students?)shows that there is no relationship between these two concepts, $r = 0.128$. In short, the frequency of exchange measures did not support Hypothesis Two, while the variety or quality measures of information processing did.

Hypothesis Three

Hypothesis Three states: The quantity and quality of information processing about immigrant students in middle schools will be associated with the effectiveness of the school in working with these students. In this hypothesis I predicted that those schools that process more information and utilize a wider variety of information processing strategies as they work with recent immigrant students would be more effective.

Seven information processing indices were used to test this hypothesis. These information processing indices were correlated with five dimensions of effectiveness using Pearson Correlations. Table 12 gives the intercorrelations between quantity and quality of information processes and the dimensions of effectiveness.

Table 12
Pearson Correlations of Quantity and Quality of Information Processing Indexes and Effectiveness

Effectiveness	FREQ. (Written)	FREQ. (Oral)	VARIETY (Quality)	VERTICAL (Quality)	LATERAL (Quality)	COMPOSITE (Quality)	COMPREHENSIVE (All)
Excused Absences (N=29)	0.213	0.262	0.331*	0.318*	0.239	0.352**	0.361**
Unexcused (N=29)	-0.365**	-0.242	0.065	0.148	0.141	0.120	-0.104
Discipline (N=24)	0.266	0.015	0.396**	0.429**	0.176	0.464**	*0.392**
Suspensions Average (N=27)	0.059	-0.040	0.142	0.101	0.353**	0.131	0.213
GPA- (N=24)	-0.110	-0.132	0.068	-0.085	0.096	-0.004	0.016

*p < 0.05
**p <.025
***p < 0.01

Disciplinary referrals and excused absences are the effectiveness measures which tend to have more frequent and positive statistically significant relationships with several of the information processing measures. For example, the variety of criteria of information processing ($r = 0.396$; $p<.025$), the vertical ($r = 0.429$; $p<.025$), the combined ($r = 0.464$; $p<.01$), and the comprehensive ($r = 0.392$; $p<.025$) indices were those measures of information processing that were significantly related to the average number of disciplinary referrals. Initially, I anticipated that schools doing a good job of information processing would have fewer disciplinary referrals. Instead the results show that disciplinary referrals have positive and significant associations with four of the seven information processing measures. The remaining three information processing variables

have positive, although weak associations with average number of disciplinary referrals. None of the associations between discipline and information processing are negative.

Interestingly, the same information processing measures found to have significant, positive correlations with disciplinary referrals earlier, were also significantly, positively related with excused absences. The variety of information also correlated with average number of excused absences, ($r = 0.331$, $p<.05$) with the index of vertical information processing, ($r = 0.318$; $p<.05$) with the composite quality of information, ($r = 0.352$; $p<.025$) and with the comprehensive information index($r = 0.361$ $p<.025$) Excused absences had weak positive correlations with the frequency of use of written/enrollment information ($r = 0.213$) and with the frequency of use of oral/informal information ($r = 0.262$). The index of lateral information processes (those requiring face-to-face exchange) had a weak positive association with excused absences ($r = 0.239$).

As anticipated, unexcused absences has a negative and significant correlation with the frequency of written/enrollment, $r = -0.365$, ($p <.025$). The remaining effectiveness measures have no relationship with unexcused absences.

As with disciplinary referrals and unexcused absences, I anticipated that suspensions would have a negative relationship with the information processing variables. However, there were no negative relationships of any strength. Instead, the average number of suspensions was significantly, positively associated with lateral information processing ($r = 0.353$; $p <.025$). The suspensions also showed a positive but not significant association with the comprehensive index of information processing ($r = 0.213$). The remaining relationships between information processes and suspension were not different from zero. Suspensions shows a statistically significant relationship with Lateral information processes, $r = 0.353$ ($p < .025$).

The GPA measure does not show any relationship with any of the effectiveness measures.

Interpretation of Results of Hypothesis Three

In Hypothesis Three, I predicted that the quantity and quality of information that was processed around the immigrant student would be associated positively with school effectiveness. I expected a negative relationship between information processing and the number of disciplinary referrals. Schools that had good information processing around their immigrant students would know their students and their needs. In this way situations leading to behavioral problems would be prevented. Contrary to what was predicted, analysis of this data reveals that the two dimensions of effectiveness -- excused absences and disciplinary referrals-- are more frequently positively associated with

have positive, although weak associations with average number of disciplinary referrals. None of the associations between discipline and information processing are negative.

Interestingly, the same information processing measures found to have significant, positive correlations with disciplinary referrals earlier, were also significantly, positively related with excused absences. The variety of information also correlated with average number of excused absences, ($r = 0.331$, $p<.05$) with the index of vertical information processing, ($r = 0.318$; $p<.05$) with the composite quality of information, ($r = 0.352$; $p<.025$) and with the comprehensive information index($r = 0.361$ $p<.025$) Excused absences had weak positive correlations with the frequency of use of written/enrollment information ($r = 0.213$) and with the frequency of use of oral/informal information ($r = 0.262$). The index of lateral information processes (those requiring face-to-face exchange) had a weak positive association with excused absences ($r = 0.239$).

As anticipated, unexcused absences has a negative and significant correlation with the frequency of written/enrollment, $r = -0.365$, ($p <.025$). The remaining effectiveness measures have no relationship with unexcused absences.

As with disciplinary referrals and unexcused absences, I anticipated that suspensions would have a negative relationship with the information processing variables. However, there were no negative relationships of any strength. Instead, the average number of suspensions was significantly, positively associated with lateral information processing ($r = 0.353$; $p <.025$). The suspensions also showed a positive but not significant association with the comprehensive index of information processing ($r = 0.213$). The remaining relationships between information processes and suspension were not different from zero. Suspensions shows a statistically significant relationship with Lateral information processes, $r = 0.353$ ($p < .025$).

The GPA measure does not show any relationship with any of the effectiveness measures.

Interpretation of Results of Hypothesis Three

In Hypothesis Three, I predicted that the quantity and quality of information that was processed around the immigrant student would be associated positively with school effectiveness. I expected a negative relationship between information processing and the number of disciplinary referrals. Schools that had good information processing around their immigrant students would know their students and their needs. In this way situations leading to behavioral problems would be prevented. Contrary to what was predicted, analysis of this data reveals that the two dimensions of effectiveness -- excused absences and disciplinary referrals-- are more frequently positively associated with

quality of information processing strategies than were other measures of effectiveness. This suggests that the kind of information that is processed is closely associated with excused absences and disciplinary issues.

The reader will recall that earlier (Section on Disciplinary Referrals) note was made of the suspiciously low rates of disciplinary referrals. After retrieving raw data and seeing that four schools did not report any disciplinary referrals, and then establishing that indeed these schools were also low on several information processing variables, I offered a possible explanation for the low rate of disciplinary referrals; loosely-coupled schools simply did not maintain accurate records. Here I offer another argument: Schools that do not keep track of their disciplinary referrals, and therefore report lower rates of referrals may not only lack information processing but may be disorganized, undemanding schools. This condition would cause both low information processing and no referrals being made by teachers. That is, the disorganized schools may have weak information processing and/or a climate in which teachers simply do not refer students because they may feel unsupported in their efforts to discipline individual students, managing disciplinary problems themselves and keeping behavioral problems to the confines of their classroom.

There is a possible explanation as to why excused absences have positive,and significant relationships with four of the information processing variables. State funds are tied to excused absences, (average daily attendance) and schools have formal, written procedures (vertical) for maintaining this information. In many schools, interaction between the main office (attendance office in some schools) and teachers focuses on absences, particularly excused absences. Teachers are expected to turn in attendance data for each of their instructional periods, and it is not uncommon to see schools collecting this information directly from teachers at the start of each class. Thus, schools that systematically record a variety of information, document changes, and have a good information exchange between the central office and teachers are more likely to have good records of excused absences.

This, in turn, suggests that some schools fail to document excused absences and that our data may underreport absences because the quality of data is dependent on the quality of records. What this also implies is that schools that do not keep good records may have falsely low rates of disciplinary referrals. Consequently, a school that has weak information processing around excused absences is likely to have weak information processing around disciplinary referrals. While there may be an incentive to document excused absences, there are few incentives for keeping track of disciplinary referrals.

Furthermore, with the numerous demands placed on teachers and school staff, documenting excused absences may take priority over discipline referrals. Having worked as a counselor in a middle school, I found that many disciplinary referrals were not documented, particularly the less serious offenses. Teachers referred immigrant students to me or to the vice-principal, and these disciplinary referrals were not documented. Disciplinary referrals were not formally or systematically documented at our school until a new vice-principal was hired who soon began requesting written referrals from teachers while he established a record-keeping system to keep track of disciplinary referrals. Previously, disciplinary referrals were based on an oral, informal process, whereby the student was sent to the office and expected to explain why s/he was referred. On occasion, teachers wrote a note which was never filed and tossed out after the vice-principal had read it, eliminating any record of disciplinary referral or action. Although teachers were making disciplinary referrals, our school would have reported very few disciplinary referrals if asked to provide this information.

I remind the reader that schools in this sample had suspiciously low rates of disciplinary referrals and were low on some measures of information processing. I also pointed out earlier how these schools may be the same ones with weak organization of record-keeping. A modest rate of disciplinary referrals may indicate that the schools care enough about each student to keep track of what happens. Again, a school not reporting *any* disciplinary referrals suggests either an unsupportive school climate and/or a lack of basic referral and documentation system.

I cite Clampett Elementary and Jackson Junior High as examples to illustrate the points made about how the poor record-keeping and a chaotic school climate resulted in not reporting any disciplinary referrals. Clampett Elementary did not report any disciplinary referrals During my visit and interview with students I observed that few formal record-keeping systems existed, and that issues related to students were addressed on a more informal basis. Also, many of the issues were resolved by the individual teachers, similar to the approach utilized in the elementary, self-contained classroom. Clampett is located in a small tightly-knit community, where it would not be uncommon for a teacher to first contact the family before referring a student to the office. Also, contacting the family is likely to produce better results than referring the student to the school principal.

Jackson Junior High, like Clampett, did not report discipline or suspensions. Unlike Clampett, Jackson Junior High had a chaotic climate, and administrators were unable to identify many of its immigrant students. This unhealthy climate and the lack of organization I observed became apparent to me in several ways. I was referred to Mrs.

Smith, a counselor familiar with immigrant students and the school who was to assist me in data collection as well as in setting up interviews with students. I visited the school only to find that Mrs. Smith had failed to obtain the necessary permission for the student interviews. I offered to speak to students to explain the purpose of my interviews, but Mrs. Thomas refused offering reasons for the "mix-up" with the permissions slips. I rescheduled the visit only to find that one of the students had been wrongly identified and was not a recent immigrant. Rosemary, identified as a recent immigrant was in the group of students I was to interview. As I began to introduce myself in Spanish I observed Rosemary beginning to physically turn away from the group, suggesting she did not want to be there. As I asked students to introduce themselves, Rosemary spoke in fluent English and stated that she had been at another school in the district and recently moved to Jackson. I inquired about her background, and quickly established that while she was of Mexican origin, she was not a recent immigrant. Rosemary had grown up in California. After dismissing Rosemary from the group, I continued to speak to the students in the focus group sensing some tension from the group. There was an unwillingness on the part of students to open up and speak, demonstrating uneasiness. Answers to my open-ended questions were brief. The students provided short, "canned" answers offering little information about their experiences at Jackson. As I recall, my interview with the Jackson students was the shortest of all the interviews. Their unwillingness to participate became very apparent and I remember feeling that these students seemed very distrustful of me.

After the students returned to their classes I stayed to chat with Mrs. Smith who was interested in finding out why I had dismissed Rosemary. I shared with Mrs. Smith that Rosemary was not a recent immigrant, and her status had probably been confused because she had just transferred from another school. Mrs. Smith disagreed insisting that Rosemary was an immigrant student because she was new to the school. After a long discussion, Mrs. Smith seemed to recognize the error. I remained in the counseling office for approximately 15 minutes longer, and admit that the chaos (phones ringing, students walking in and out, teachers getting coffee from Mrs. Smith's coffee pot, cheerleaders practicing their cheers, (all during class time) made me feel like the students I had attempted to interview earlier; I too wanted to leave as soon as possible. The front office through which I had entered the school grounds earlier was no different.

Mrs. Smith had promised to retrieve the student data, refusing any assistance I offered. After numerous calls she mailed excused and unexcused absences data. Mrs. Smith was unable to provide any information on disciplinary referrals or suspensions. Also, Jackson was not able to identify their immigrant students at their school (total

school enrollment = 1004). Jackson is located in the heart of Santa Clara county in a community recognized for having many Mexican and Vietnamese immigrants.

I use these schools as examples to demonstrate how poor, or no record keeping can result in the failure to document absences, disciplinary referrals or even suspensions. Because the quality of the data is dependent on the records kept, it is not surprising to see that records (for whatever reason) may have falsely low rates of disciplinary referrals.

Because suspensions are severe punishments which result in removing students from schools, these procedures require people, including parents, (often by law) to come together to discuss the specific incident/student. Lateral information processes bring people face-to-face to make decisions about immigrant students. This may explain the high correlation between number of suspensions and lateral processes.

In general, the measure of grade point average had no relationship with the effectiveness measures.

Hypothesis Four

Hypothesis Four states: Coordination by mutual adjustment, reciprocal interdependence and information processing have independent and positive effects on school effectiveness. In this hypothesis I predicted that coordination by mutual adjustment, reciprocal interdependence and information processing would have independent effects on measures of school effectiveness. Also, I predicted that these effects would be positive.

I tested this hypothesis by using the three independent variables, (coordination, interdependence, information processing) simultaneously to examine their strength as predictors of various dimensions of school effectiveness. The effectiveness variables were regressed on the independent variables, controlling for several factors: school size, proximity to the border, proportion of immigrant students, metropolitan/central city setting, district designation, grade span, year round schooling and newcomer center. I controlled for these variables because of their possible effects on a middle school's effectiveness in working with a specific student group, such as the recent immigrants. A correlation matrix is shown in Table 13.

Table 13

Pearson Correlations Matrix of Average Number of Disciplinary Referrals per School, Coordination, Interdependence, Combined Quality of Information Index and Year Round (N=24)

	Disciplinary Referrals	Coordination	Interdependence	Combined Quality	Year Round
Discipline Referral Average	1.000				
Coordination	0.537***	1.000			
Interdependence	0.266	-0.111	1.000		
Combined Quality of Info.	0.464**	0.339*	0.330*	1.000	
Year Round	-0.164	0.233	0.047	0.169	1.000

*p < 0.05
**p < 0.01
***p < 0.005

The five dimensions of effectiveness were regressed separately on the independent variables using the controls described earlier, one at a time. Table 14 shows the multiple linear regression equation where the three combined independent variables were found to have a significant relationship with effectiveness, on the dimension of the average number of disciplinary referrals.

Table 14

Regression of Average Number of Disciplinary referrals per School, on Interdependence, Coordination, Information Processing

Dependent Variable: Discipline Referral Average N=24
Multiple R: 0.713
Adjusted Squared Multiple R: 0.405 SquaredMultiple R: 0.508
Standard Error of Estimate: 0.529

Variable	Std Coef	Std Error	T	P(1 Tail)
Constant	0.000	0.506	-0.371	0.357
Coordination	0.444	0.129	2.422	0.013
Interdependence	-0.299	0.091	-1.769	0.046
Composite-Quality	0.406	0.040	2.128	0.023
Year Round	-0.293	0.297	-1.773	0.046

Analysis of Variance

Source	Sum-of-Squares	DF	Mean-Square	F-Ratio	P
Regression	5.495	4	1.374	4.907	0.007
Residual	5.319	19	0.280		

*p < 0.05

Year round schooling was the only control variable to have an effect on the average number of disciplinary referrals. Note that multiple linear regressions were conducted with the three combined variables, and each of the effectiveness measures, with the various controls described in Chapter Five. Again, regression results are reported only for the effectiveness and control variable found to be significant.

Preliminary Interpretation of Results of Hypothesis Four

The results show that two predictors have statistically, positive relationships and two had a negative relationship to the dependent variable using a one-tailed test of significance and controlling for effects of the year-round schooling. The full regression model was statistically significant at $F = 4.907$ ($p < .001$)

The results show that after controlling for several variables, and regressing the dependent variables on the independent variables, the only equation where the predictors were significant was the equation for disciplinary referral average. The regression equation above shows coordination and interdependence working in contrary ways. Interdependence is a negative predictor, while coorindation is a positive predictor. Coordination and interdependence were both predicted to have negative relationships with disciplinary referrals. It was predicted that schools that were coordinated and interdependent in working with immigrant students would have fewer problems with discipline.

The equation shows coordination having a positive relationship ($\beta = 0.444$; $p < 0.013$) with disciplinary referral average. A plausible explanation for coordination being positively related to disciplinary referrals is that these schools are coordinating around issues related to student behavior, (e.g. discipline) instead of academic issues (e.g. student progress, transitioning out of ESL classes), as I had anticipated. Given earlier findings that schools in this sample tend to be dominated by informal, processes that are oral instead of written, it is likely that these informal, verbal interactions focus on student behavior. When I worked in middle schools, it was not uncommon to hear teachers comparing notes about student behavior during passing periods. As a counselor, I heard teachers frequently interact asking "How does John behave in your class? He has been difficult to manage in my class all week. Do you have a clue as to what is happening?" There was almost a type of consensus building that I observed taking place during these brief encounters.

Interdependence, shows a negative relationship with disciplinary referrals ($\beta = -0.299$; $p < 0.046$). These results provide some support for the original hypothesis about

interdependence being negatively related to disciplinary referrals In other words, this is what I expected and predicted initially-- those schools with interdependent staff would work more effectively with their students. This interdependence would allow teachers to talk about their students, and disciplinary problems would be more likely to be addressed before these became serious.

This equation also shows that disciplinary referrals are affected by information systems, and more specifically quality of information processes ($\beta = 0.406$; $p < 0.046$). Finally, year round schooling seems to have a negative relationship with disciplinary referrals ($\beta = -0.293$; $p = <.0\ 046$). This implies that schools that are year round have fewer discipline problems. It is not clear why year round would have an effect on disciplinary referrals, particularly when year round schools are more difficult to organize and manage. For this reason, one would expect that schools that are year round would have more disciplinary referrals.

Summary of Results

In designing this study I approached my examination of junior high and middle schools with a rational organizational perspective. This paradigm made me envision that those schools where staff were more interdependent and coordinated their work, were more interdependent, would have less problems with immigrants students being absent from school, having lower rates of disciplinary referrals and suspension rates, and ultimately increasing their qaulity of academic performance. I also envisioned that those schools where staff were given opportunities to come together (for example, teaming) would be more cognizant of their students' needs, particularly academic ones. Teaming would reduce anonymity, encourage collective decision-making and the number of students falling through the cracks would be minimized. Also, if teachers were given the opportunity to meet and prepare their work together, they would exchange ideas and information in a way that would help them in addressing the needs of their students. Consequently, the quality and quantity of information would increase so that the data on immigrant students would be richer, setting the stage for informed decision-making. Finally, I also assumed that the focus of this interaction would be on the students' academic growth.

The results of the data analyses are mixed and the hypotheses are only partially supported. Admittedly, the rational paradigm, driving the methodology, and guiding my study obscured some of the realities of schools. For example, the way in which I operationalized effectiveness measures (particularly, the disciplinary referrals) may have limited usefulness in capturing important relationships taking place in these schools. The

effectiveness school literature often cites the measurement of effectiveness as part of the challenge in defining what an "effective school" looks like.

Furthermore, does the school context operationalize "disciplinary referrals", or does a specific student population, such as immigrants, re-define the purpose of disciplinary referrals? That is, are disciplinary referrals used in schools strictly for discipline, or in the case of immigrant students, are referrals a form of guidance? Because bilingual counselors have become extinct in schools, are teachers forced to use disciplinary referrals as a form of intervention instead of having the punitive intent (coupled with negative connotations) that I assumed? Do these definitions vary from school to school, depending on the specific school culture? Also, how are these definitions affected by the way in which relationships (or work arrangements) are structured?

Additional issues raised by the results of these analyses are related to information processing, such as record keeping. In assessing school effectiveness in formal organizations such as schools, did I rely too much on what was formally documented? While I suggested earlier that junior high schools should have some documentation of disciplinary referrals, is it fair to assume that if these do not exist there are still some disciplinary problems? The possibility exists that an individual staff member may be taking care of disciplinary issues before discipline becomes problematic. My measurement of effectiveness may have been limited by the methodology used.

Finally, does our social construct of adolescence (for all youngsters, not just immigrants) affect how teachers perceive the role of disciplinary referrals? In other words, does our perception of what schools should be doing with, or to adolescents (e.g. taming rebellious energy) re-conceptualize the intent of disciplinary referrals, and even the kind of coordination that takes place in school? I raise these issues given the mixed results of my research.

MEXICAN IMMIGRANTS IN MIDDLE SCHOOLS: IMPLICATIONS FOR SCHOOL EFFECTIVENESS

Three levels of implications of the study are addressed in this section: implications for practice for addressing diversity in the student population, implications for future research, including some of the limitations of this study, and finally implications for policy. First I summarize the findings from this study, and then discuss its implications.

Summary of Findings

The intent of this study was to identify organizational characteristics of junior high and middle schools that are likely to contribute to addressing the academic needs of Mexican immigrant students. I proposed that those schools where staff coordinated their work, and depended on one another, as well as exchanged information about their immigrant students would be more effective in addressing their students' diverse academic needs. More specifically, I suggested that if formal opportunities were structured for staff to talk and work together they would know their students' academic needs, and be more effective in monitoring their progress. This in turn would lead to immigrant students doing better in school; students would attend school regularly, academic programs would be more individualized, academic progress would be monitored, and academic achievement, including developing English proficiency, would increase. In short, I suggested that schools that facilitate staff coming together to talk and work around the needs of their students would be better informed about their students' academic needs. In turn staff would know their students better, and consequently would address their needs more effectively. Ultimately, this would result in students doing better in school.

Using statewide rates and other research as sources for comparison, indicates that immigrant students, as a population are not problematic, attend school regularly are well-behaved and perform reasonably . While the present social and political climate often blames this student population for many of the problems in schools, this study found this to be the contrary --immigrant students are not a problematic population. Also, in speaking with administrators and asking them to compare immigrant students to their non-immigrants in the areas of attendance and behavior the responses that I heard repeatedly and succinctly put was that "the immigrant students aren't the ones that give us problems; they're good kids." (Mr. Franklin, Principal, Rio Vista Junior High). Thus, the perception that these are the students lowering the educational standards is unfounded, and erroneous.

Evidence also shows that immigrant students do well in school despite school level mechanisms that support their academic work For example, I found that many junior high and middle schools are disorganized when it comes to basic processes that are necessary for effective schooling of immigrant students. Identification of students in many schools was a problem in many schools, including some of those schools which I visited. Staff are generally given few formal opportunities to coordinate their work and often this coordination is related to discipline and unexcused absences. Schools continue to be dominated by informal processes leaving little opportunity for professionals to come together to discuss and exchange information relevant to the academic needs of

these students. Staff isolation seems to continue to characterize these schools, with little teaming, interdependence or collective decision-making taking place. The majority of the schools in this sample did not have teams to work with recent immigrants. However, those schools with teams tended to have higher levels of information exchange, while those schools with no teams did poorly on information exchange. Also, effective schools in this sample tended to be associated with disciplinary referrals, suspensions, and excused absences. These findings have direct implications for creating effective schools and the education of immigrant students.

Implications for Practice

One of the most important implications seems to be the most obvious to those of us experienced in working with diverse students -- that of recognizing the presence of immigrant students in our schools, and making attempts to understand their academic needs. Simply stated, the beliefs we have about our students will influence our expectations for their achievement. Recognizing the variability that exists within the immigrant group (which assumes recognizing differences withiin the Spanish-speaking, Mexican/Latino community) with regards to English proficiency levels, academic background, and intellectual development and abilities is the first step to addressing their needs. Practically, this can be achieved by establishing intake or enrollment procedures whereby new immigrant students are interviewed given a variety of assessments, including math, and English, and Spanish, reading and writing. Recommendations from the State (**Caught in the Middle**, for example) and other major policy groups (such as the Carnegie Commission on Adolescents, Edna McConnell Foundation) repeatedly call for school structures that are flexible and more responsive to students. The limitations of the fragmented, departmentalized structure echo throughout the middle school community.

These recommendations, informed by organizational theory, describe school structures that are more flexible and responsive to addressing student needs, avoiding that students, are getting lost in the shuffle. For example, school designs that profmote collaboration and interdependence amongst staff through teaming are highly recommended. Teaming structures opportunities for people to come together to discuss specific issues, reducing isolation and increasing interdependence amongst staff, whichi in turn creates instituions that serve students better. Teaming, or people coming together to talk about immigrant students, thus becomes an essential element for addressing divesity. In this study, formal or informal teams were found to do better on information

processing than schools with no teams, for example. The evidence seems to indicate that the degree of formality is associated with the exchange of information.

Further implications regarding teaming is that school teams need to have specific functions or purposes that are made explicit to its team members. The function of the team, then should dictate the type of information exchanged and the way in which this information is exchanged. For example, I found in this study that most schools did not have teams, and those that did have teams tended to process written information that was related to discipline issues such as attendance and suspensions. I suspect that the team meetings were dominated by paper pushing, with the talk centering around discipline. While teams may periodically need to engage in this type of discussion, it is important that talk about immigrant students extends beyond behavior issues, and that the level of discussion is carried into the academic and English proficiency arenas. Also, what seems to be important in the teaming is to have an individual assigned or responsible for the teams. I worked in a school where one of the resource specialists was responsible for bringing people together, as well as contacting teachers, and providing student background information to teachers when necessary. This was done previous to the meeting. As staff we knew the purpose of these meetings (Special education referrals), the meeting time and meeting place never changed; Mrs. Johnson was the desingated team leader, and we were expected to attend if a student we knew was on the agenda. Also, the meetings were always attended by the vice-principal, and attendance and participation were the norms generally respected-- teachers attended with their talk guided by an agenda. I recall these meetings as a very effective and efficient model because decision-making was collaborative and informed, our discussions focused on the child, (parents often attended),and paperwork did not distract us, and we got things done.

Coordination around the transition of immigrant students into regular classes was found to be taking place only miniminally and having a weak association with teaming. Because transition is so important to immigrant students as they progress in English this finding has direct implications for practice. Schools need to examine how their students are assesed, and in turn exited or moved from one level of English acquisiton to another. It is important that teachers coordinate these efforts, and teams are one avenue that can be used to deal with this need. In short, the right hand should know what the left hand is doing; this is what should be coordination's intent.

We know that information exchange takes place in schools by the mere fact that people are involved in working with students. This study supported this observation-- there is information exchange in most schools. What I also found is that once we look at specific dimensions we know that schools do poorly on written information related to

enrollment of immigrant students. The schools in this sample had difficulty with the more sophisticated processes of exhcnage, such as the lateral processes which require face-to-face interaction. The schools tended to do well on oral informal exchanges that were less sophisticated, often not requiring background information or previous preparation. If oral and informal exchanges are the times utilized for decision-making this has direct implications for how we are making decisions about children. Clearly, informal, oral opportunities are limiting, partiuclarly when other avenues for information exchange are not available. Again, structures that do not support formal opportunities for teachers to come together force staff to make decisions whenever possible. Decisions that are made on the spot,impulsively, with little opportunity for talk or reflection amongst people can be more detrimental than useful to a student. Again, schools with formal or informal teams are associated with better information exchange.

A school's ability to coordinate and have interdependence conducive to information processing is related to a school's ability to address diversity. In short, those organizational designs that foster collaboration thorugh teaming seem to be more effective in working with diverse students. The findings from this study, in short, tend to indicate that without having some basic, fundamental foundations such as teams, it is difficult for schools to engage in more demanding activities such as coordination and high levels of information exchange. The expression having the "cart before the horse" illustrates the point that it will prove difficult for schools to attempt coordination and information exchange around immigrant students when fundamental organizational precedents, such as teams are not in place.

Implications for Research

Earlier I mention, methodological limitations of this study, particularly the definitions we, as researchers, have about what constitutes school effectiveness. As I say earlier, 20 years of effective schools research has identified some of the limitations or earlier definitions of effectiveness. Scott (from an organizational perspective) also identifies problems in measuring and capturing "effectiveness". I too, was faced by this problem because my definitions, data and measurement were dependent on one another. That is my measurement of effectiveness wad heavily dependent on the quality of data I obrtained. This became problemmatic when I became suspicious of some of the data that was reported . In visiting schools I found that some of these schools were chaotic and data was difficult to obtain simply because student level information was not maintained by the schools. Thus, I learned that my effectiveness measures were not as accurate

representations of "school effectiveness" because I had assummed that the data I would use to determine effectiveness was reliable.

Scott also mentions that different groups have different definitions of effectivness, and this is often a reason for some of the problems in capturing this concept. Is it possible that my definition of effectiveness varied than that held by school people? I beleive that it is possible given that the measures of effectiveness which were the most reliable and those found to be more closely asociated with school effectiveness dealt with behavioral issues such as suspensions, and attendance. My definition of effectiveness did not envision or include behaviorial issues specifcally. My defintion focused more on academic isues.

Considerations of context are also important (McLaughlin and Talbert, 1990) to acknowledge in these definitions, including the status that specific student groups occupy within these school contexts. I found that school location, avaialability of resources, and bilingual Spanish-speaking staff had major influences on the way in which immigrant children and the education they received was perceived. Generally, I found that immigrant students were isolated and not integrated with their English dominant peers. However, the degree to which there was integration depended on the school context.

Researchers (and practioners) need to be aware of the important distinctions between recent immmigrant students from Mexico and native-born students of Mexican descent (Chicanos, for example). Most of the data collected by California and the federal government tend to clump "Hipanics" or "Spanish-speaking", or, in the case of schools "home where Spanish is spoken" as being the same population. While language is the common denominator with this population, differences exist within this Spanish-speaking group. Thus, the degree to which there is Spanish dominance and English proficiency will have consquences for the way in which one interacts with social institutions such as schools. I suggest that often, recent immigrant populations have different expectations of schools in the United States (than Chicanos, for example). By immigrating most families hope for improvement in their economic situation, and part of this economic improvement is an education. Mexican immigrants are aware of their access to a free education and taking advantage of this opportunity is very important. Thus, it is not surprising to this researcher that recent immigrants are not problematic students. However, as English proficiency increases, and recent immigrant status changes to permanent residency, immigrant students' academic expectations may change. Thus, research needs to address within group diversity (Spanish-speaking, Chicano, Mexican national,or *recien llegado* (recent arrival) for example) when discussing academic achievement or rates of attendance or suspensions.

One of the main issues consistently addressed in the present middle level reform movement is instruction, yet few studies have examined how structure and curriculum fit together. As mentioned above, the structuring of work arrangements, ultimately has implications for instruction. Further research is needed to study these links, in greater depth including their consequences. That is, middle school research needs to focus on organizational issues specifically related to instruction and effectiveness. Many of these questions have been explored with elementary and high schools; few studies focus on middle schools yet the need to examine the fit between structure and curriculum at the middle level is no less critical.

I suggested earlier that the existing theoretical base that examines diversity and adolescents, needs to cease being solely psychological and individually-based. Additional lenses, such as the sociological, need to be incorporated in understanding diversity and adolescents, in general. Just as professional photographers use many different lenses (from the zoom to the wide angle) to get different perspectives of the same image, researchers in middle level education need to stop limiting their analysis to always using the same lense -- the psychological lense. By incorporating different dimensions and including different theoretical bases in examining schools we can increase our understanding of school effectiveness.

This research attempted to shed light on issues related to school effectiveness and immigrant students. In correlating organizational characteristics of junior highs and middle schools with effectiveness, many questions were raised that were not in the scope of this study. For example, what are the demands placed on students? Do schools have high expectations for performance of their immigrant students? If yes, are schools structured to assure access to the core curriculum and content area classes? While students in this study generally receive average and above average grades, one wonders if these grades are inflated because students are taking primarily ESL classes, being denied access to challenging core curriculum. Are immigrant students being placed in the "low tracks" based on their LEP status? Is physical education the only class where immigrant students are integrated with English speaking peers and models? These are questions that were not answered in this research, requiring further investigation.

Policy Implications

In the discussion of middle school effectiveness I raise the issue of how difficult it is to fully assess middle school effectiveness when the goals or objectives of middle schooling are not established, and broadly agreed upon. That is, it is difficult to know if you are doing the "right thing" if the "right thing" has not been clearly defined. What is

the goal or purpose of the middle school? What should middle schools be doing for adolescents. This leads to other questions including what we expect from adolescents These are central questions that need to be addressed by policy . Major policy papers related to the education of middle level youngsters [(e.g. **Caught in the Middle** (1987) and **Turning Points** (1989)] fail to address this issue, assuming that the mission of the middle school has been articulated and made explicit. While extensive policies address how middle schools should work, little discussion has taken place around the purpose of middle school education. If middle level policy is suggesting that the prevalent model of the junior high is obsolete and should be modified, then recommendations on the purpose and objective of these proposed models should precede restructuring . As Perlstein and Tobin (1991) clearly point out lacking a mission has been some of the historical baggage which middle schools have carried since their formation in the early 1900's. Policy needs to provide direction in making the goals of middle level education explicit, particularly given the social and economic changes taking place in this country.

Historically, most educational policy has been made without any consideration or recognition of student diversity, especially diversity that stems from being a member of a group that speaks a different language. For example, discussions that address diversity, if they occur at all, have been peripheral and not seen as an issue central to the reform agenda. Given the demographics in our state (and in the country) and its impact on schools, diversity needs to be at the core of discussions about the reorganization of instruction, and incorporated into reform policy mandates. Diversity can no longer remain in the background of policy discussions, particularly those related to school effectiveness.

At the district level formal policies should be developed collectively about immigrant students. These district policies need to be explicit, understood by all school staff and integrated into district plans, which are implemented at the local school levels. What are district goals for the education of its immigrant students? What are schools expected to do in addressing the needs of immigrant students? Districts need to provide leadership through directives that address language instruction. Also, these policies need to address equity issues such as the integration of immigrant students, providing them access to content area classes, such as science, mathematics (algebra), social studies, and gifted education.

Districts should also provide leadership by securing funds and resources to address the needs of immigrant students. Most of the schools in this sample that have promising practices and are making attempts at addressing the needs of their immigrant students have been given directives by their districts in various forms. These include

policies, commitment of funds and resources, including staff that has been designated to oversee the coordination of instructional and other services to immigrant students.

At the school level, policies developed collectively by administrators and staff, and assisted by the district, need to be developed for incorporating the education of immigrant students into the mainstream curriculum. These plans need be school-wide efforts that involve all teachers, and in turn give all teachers a role in teaching immigrant students. Bilingual staff that are trained to work with immigrant students should not be the only ones held accountable for these students. This is why formal opportunities for teachers to work together need to be institutionalized and supported by the school administration. All staff, including administrators, within a school should be encouraged to accept the professional responsibility of working with all children.

School level practices, facilitated by policy, should include comprehensive assessments by trained, bilingual staff. This assessment needs to be institutionalized, including record-keeping systems that maintain and disseminate relevant student information. These processes need to be made part of the normal, day-to-day practices, . Monitoring of student progress should be part of the efforts that occur routinely, through teaming, for example. Staff need to be assigned to monitor student progress and to assure that teachers are provided the support necessary (including release time, funds, and other necessary resources) to carry this out. It is also important that instructional programs be articulated with feeder elementary schools and receiving high schools.

Finally, school level policies and practices need to establish a school-level climate and tone that accepts immigrant students without "blaming" youngsters for their immigrant status and their limited-English proficiency, relegating them to occupy lower status roles at both academic and social levels. The experiences and perspectives these students bring to schools should be embraced and received as a resource, instead of a liability. The reform movement does not consider the role of power and status of different student groups, particular of those such as the Mexican immigrant. Part of this renewal needs to recognize historically and structurally based imbalances in administrative practice and school programs that are part of the legacy of schooling practices. This school restructuring must pervade all aspects of the organization -- from budget to personnel, to instructional programs to master schedules to school and classroom interaction. In summary, the commitment to a vision that incorporates equity and democratic practices for all students, particularly those student populations historically neglected, such as immigrants, should belong to a school, not to an individual. This requires institutional level commitment, initiated and supported by

policy, that structures, facilitates, encourages and honors good efforts systematically instead of episodically.

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